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ABSTRACT

The characteristics and pathways of school leavers in Australia were examined by analyzing data on the cohort of Longitudinal Surveys of Australian Youth (LSAY) young people who were in year 9 in 1995 along with data on previous cohorts of teenagers. Only 79% of members of the study cohort remained in secondary school until the end of year 12. In some respects, during the late teenage years, noncompleters fared better than completers who did not enter higher education. Noncompleters were more likely to be in full-time employment, receive higher hourly earnings, display greater job stability, and report being in the type of job they would like as a career. On other counts, however, noncompleters experienced less successful transitions from school than those of completers. Compared with completers not in higher education, male noncompleters were more likely to be unemployed and female noncompleters were more likely to be outside the labor force. It was emphasized that analyses at later points in time might reveal different and more substantial differences between the labor market activities of noncompleters and completers. (Fifty-eight tables/figures are included. The bibliography lists 62 references. The following items are appended: background information about the LSAY and other estimates of school noncompletion rates; descriptions of the study variables; and supplemental tables and figures.) (MN)

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Longitudinal Surveys of Australian Youth

Research Report Number 31

School Leavers in Australia:
Profiles and Pathways

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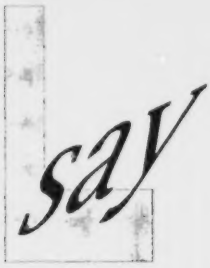

Longitudinal Surveys of Australian Youth

Research Report Number 31

SCHOOL LEAVERS IN AUSTRALIA: PROFILES AND PATHWAYS

Julie McMillan
Gary N. Marks

This report forms part of the Longitudinal Surveys of Australian Youth: a research program that is jointly managed by ACER and the Commonwealth Department of Education, Science and Training (DEST).

The views expressed in this report are those of the authors and not necessarily of the Department of Education, Science and Training.

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EXECUTIVE SUMMARY

This report examines the process of school leaving and the transition from school to post-school education, training and the labour market. A major focus of the report is young people who do not stay on to complete senior secondary school, as this group is often perceived 'at risk' of experiencing a problematic transition. In particular, we address the following research questions.

1. What are the influences on school non-completion, and have these influences changed over the past two decades?
2. What are the early post-school experiences of school non-completers, and how do these differ from young people who complete Year 12?
3. How do sociodemographic and human capital factors influence the labour market activities of young people?

Data and scope of report

The report is based upon data from the *Longitudinal Surveys of Australian Youth* (LSAY) program. Several cohorts of young people have been surveyed as part of the LSAY program. We focus on the experiences of the cohort of young people who were in Year 9 in 1995, supplemented by data on previous cohorts of teenagers.

The experiences of the 1995 Year 9 cohort are followed through to late 2000, when the majority of cohort members were 19 years of age. The report describes the characteristics and experiences of two groups of non-completers within this cohort: *early school leavers* (who left school on or before the completion of Year 10); and *later school leavers* (who commenced Year 11 but left school before the completion of Year 12).

For comparative purposes, we also report on *school completers*. At the time of data collection in late 2000, the majority of the completers in the sample had been out of school for two years, and of the completers who entered higher education, the majority were engaged in full-time study. Consequently, when examining labour market outcomes, analyses are restricted to comparisons between non-completers and the subset of completers who did not enter higher education in the immediate post-school years.

Sociodemographic and educational profile of school non-completers in the 1980s and 1990s

The report provides a description of the changing sociodemographic and educational profiles of school non-completers in the 1980s and 1990s. Throughout this period, young people with one or more of the following characteristics remained less likely than other young people to complete Year 12: males, indigenous Australians, those from low socioeconomic status family backgrounds, from English-speaking backgrounds, those from non-metropolitan areas, from government schools, and with lower levels of literacy and numeracy.

Nevertheless, the results do suggest that in some respects schooling became more equitable, while in other respects it became less equitable. In particular:

- The relative gender gap favouring girls increased throughout most of the period, but this trend was not maintained into the mid to late 1990s.
- The influence of socioeconomic status (measured by parental occupation and parental education) and school sector declined.

- The school non-completion rates of young people from Catholic schools were between those of government and independent schools in the early 1980s, but by the mid to late 1990s there was little difference in the non-completion rates of Catholic and independent school students.

- The representation among non-completers of young people with Australian-born parents and non-metropolitan students increased.

- Between the 1980s and 1990s, the gap between the school non-completion rates of young people with very high and very low levels of literacy and numeracy narrowed, reflecting a broadening of the senior secondary school curriculum.

School non-completers in the 1995 Year 9 cohort

Of the young people in the 1995 Year 9 cohort, 9 per cent left school on or before the completion of Year 10 (*early school leavers*) and a further 13 per cent left before the completion of Year 12 (*later school leavers*). Seventy-nine per cent of the cohort remained in secondary school until the end of Year 12 (*completers*).

- A low level of literacy and numeracy achievement was a major influence on school non-completion. Low achievers were not only more likely to leave school early, but they were among the first to do so. The influence of literacy and numeracy on school non-completion was stronger for boys than girls.

- Boys were less likely than girls to complete senior secondary school. Approximately 26 per cent of males did not complete school, compared with only 16 per cent of girls.

- Socioeconomic background was associated with school non-completion. Of young people whose parents were employed in unskilled manual jobs, 26 per cent did not stay on to complete Year 12, compared with only 15 per cent of those whose parents were professionals or managers. Similarly, parental education was associated with young people's school leaving patterns. Furthermore, multivariate analyses show that among students with similar achievement levels (measured by literacy and numeracy scores), there was a small but significant relationship between socioeconomic background and school non-completion.

- Of the groups examined in this report, indigenous Australians were the most disadvantaged group. Twenty per cent left school by the end of Year 10, and a further 26 per cent left school before completing Year 12. (The corresponding figures for non-indigenous students were 8 and 12 per cent, respectively). These differences were only partially explained by the socioeconomic and academic characteristics of indigenous and non-indigenous students.

- Students from English-speaking backgrounds (measured by main language spoken in the home) were more likely than those from language backgrounds other than English to become non-completers (23 per cent compared with 10 per cent). The influence of language background remained significant after controlling for sociodemographic characteristics and literacy and numeracy.

- Students who attended schools in rural or remote areas, or to a lesser extent in regional areas, showed higher rates of early school leaving than their metropolitan counterparts (14, 10 and 6 per cent, respectively). Of students who commenced Year 11, students from regional, rural and remote areas had similar non-completion rates (17 per cent), in contrast to the lower non-completion rates of metropolitan students (11 per cent).

- Independent and Catholic school students were less likely than government school students to become non-completers (11, 12 and 26 per cent, respectively). These school sector differences

in non-completion can be partially explained by the socioeconomic and academic mix of students in the different sectors.

Reasons for leaving: the views of non-completers

Another way of examining the influences on school non-completion is to ask non-completers why they left school. The majority of early and later leavers perceive work or an apprenticeship as a viable alternative to school, and this is why they leave.

- The reason most frequently nominated by both early and later school leavers as an important (or the main) consideration in the decision to leave school was to secure a job or an apprenticeship. Over 80 per cent of early leavers and 76 per cent of later leavers indicated that this was an important consideration in their decision to leave school. Just over a half of the early leavers, and 44 per cent of the later leavers indicated that this was their main reason for leaving school. The next most common reason for school non-completion was also work-related ('to earn my own money').

- School-related factors were less prominent among the reasons given for non-completion. Just under a third of non-completers (or 6 per cent of the total cohort) indicated that a school-related factor such as not doing well at school, not liking school, or the types of courses offered by the school, was their main reason for leaving.

- According to non-completers, advice from teachers and financial difficulties played a very minor role in school leaving.

- There were some differences between early and later school leavers in the reasons given for leaving school. A smaller proportion of later school leavers cited wanting to get a job or an apprenticeship as an important or main reason. The students most committed to the alternative of entering the full-time labour market were more likely to be among the first to leave school.

Post-secondary education and training

Disengagement from school is not the same as disengagement from education, as evidenced by the level of participation by non-completers in post-secondary education and training. In the year after leaving school, around half of all non-completers engage in some form of education or training. However, non-completers differ from completers in terms of both their level of participation and the type of education and training undertaken. In particular:

- Non-completers were less likely than completers to undertake post-secondary education and training.

- Forty-one per cent of completers were in courses leading to bachelor's degrees. Less than one per cent of non-completers were enrolled in bachelor's degrees.

- Apprenticeships were more common among non-completers than completers.

Gender differences in both the level and type of post-secondary education and training were also evident.

- Among non-completers, males displayed higher levels of participation in post-secondary education and training.

- Apprenticeships were male dominated.

- Female non-completers were more likely than male non-completers to participate in other TAFE/non-degree courses.

- Among completers, females were more likely than males to be enrolled in courses leading to bachelor's degrees.

Overview of educational, training and labour market activities

The report provides a snapshot of the main educational, training and labour market activities of the 1995 Year 9 cohort in each year between 1997 and 2000. The main findings are:

- In the post-school years, the majority of non-completers obtained full-time employment, and with each passing year, levels of full-time employment increased.

- Of the three groups of school leavers, early leavers were the most likely to be in full-time employment, followed by later leavers, and then completers. At the time of the 2000 interview, 71 per cent of early leavers, 65 per cent of later leavers, and 61 per cent of completers who had not entered higher education, were employed full-time.

- A further 4 per cent of early leavers, 7 per cent of later leavers, and 17 per cent of completers outside higher education, were in full-time non-degree study in 2000.

- In any year after leaving school, around 10 per cent of early leavers, later leavers and completers who had not entered higher education were in part-time employment that was not coupled with full-time study. The majority expressed a preference for full-time work.

- Substantially higher proportions of non-completers than completers were unemployed (that is, not working, but looking for work). In late 2000, 10 to 11 per cent of early and later leavers, compared with only 6 per cent of completers outside higher education, were unemployed.

- Non-completers were also more likely than completers to be outside the labour force (and not studying). In late 2000, 7 to 8 per cent of non-completers, compared with only 3 per cent of completers not in higher education, were outside the labour force.

The report also provides an examination of the extent to which young people move between educational, training and labour market activities in the early post-school years. Of particular concern are those who remain in economically marginal activities over a number of years. Marginal activities comprise part-time work not coupled with full-time study, part-time study not coupled with full-time work, unemployment, and being outside the labour force and not studying.

The main findings are:

- Nine per cent of both non-completers and completers who did not enter higher education remained in marginal activities in the early post-school years. Females were more likely than males to be in this group.

- A larger proportion of young people remained in full-time work and/or full-time education and training. Completers not in higher education were more likely than non-completers to consistently report being engaged in such activities at the time of each post-school interview (68 and 48 per cent, respectively).

- Twenty-three per cent of completers not in higher education and 43 per cent of non-completers reported moving between marginal and non-marginal activities in their post-school years.

- Of the school leavers who moved into full-time work soon after leaving school, those who also undertook further education and training were less likely to move into marginal activities in subsequent years. These benefits were evident among both non-completers and completers who did not enter higher education.

- Of the school leavers in part-time work or part-time study, between 40 and 60 per cent moved into full-time work by the following year.

Unemployment, occupational status and earnings

The report examined unemployment among recent school leavers, and for those who gained full-time employment, their occupational status and earnings in late 2000. For each of these labour market outcomes, the influence of social background, schooling, post-school education and training, and labour market experience were assessed. The findings suggest that in some regards early school leavers fare better in the immediate post-school years, while in other regards, completers who do not enter higher education do better.

The main findings relating to *unemployment* are:

- School non-completion was associated with higher unemployment rates in the early post-school years. However, after controlling for a range of social background and educational factors, the picture became less clear. The odds of completers being unemployed were not significantly different from those of early school leavers, other things being equal.

- Among non-completers there were differences between early and later school leavers, with later school leaving being associated with higher unemployment.

- Other factors also influenced unemployment among recent school leavers. Young people from low socioeconomic status families, from language backgrounds other than English, and with low levels of literacy and numeracy were more likely to be unemployed.

- The benefits of various types of post-school education and training differed. For school non-completers, the completion of an apprenticeship reduced the risk of unemployment, while the completion of a traineeship was associated with a higher likelihood of unemployment and the completion of other non-degree study was not related to unemployment.

The main findings relating to the *occupations* of young people in full-time employment are:

- Non-completers were more likely than completers to obtain manual work or lower status occupations, although these differences disappeared after controlling for social background and human capital. There were differences, however, in the types of factors that influenced the occupational status of non-completers and completers.

- Among non-completers, being female and coming from a high status family was associated with obtaining higher status jobs.

- Post-school qualifications and labour market experience had more positive effects on occupational status for completers who had not undertaken higher education, than for non-completers.

- Achievement in literacy and numeracy was positively related to the occupational status of both completers and non-completers.

The main findings relating to the *hourly earnings* of young people in full-time employment are:

- Earnings increased the longer a young person was out of school, with non-completers displaying greater earnings than completers not in higher education.

- Other aspects of human capital also influenced earnings. Literacy and numeracy had stronger effects among completers, while non-completers received greater returns for their labour market experience. New Apprenticeships had a negative effect on hourly wages, especially among completers. Participation in, or the completion of, other non-degree study was not related to earnings in the early post-school years.

- Males, young people with parents in high status occupations, and young people who had attended Catholic schools tended to receive higher hourly earnings. These relationships were relatively weak but remained significant after controlling for the influence of education, training and labour market experience.

Young people's views about their jobs and careers

The final substantive chapter of the report focused on job stability, the reasons young people change jobs, and their satisfaction with their jobs and careers. The main findings are:

- Young people reported relatively high levels of satisfaction with various aspects of their work. There were no substantial differences in the work satisfaction of employed early leavers, later leavers and completers not in higher education.

- While there was considerable movement between jobs, a substantial amount of this movement was initiated for positive reasons (such as wanting to get a better job), rather than for negative reasons associated with job insecurity (such as having a temporary job or being laid off).

- As length of time since leaving school increased, there was a decline in job mobility among young people, and a corresponding increase in the proportion that reported being in the type of job they would like as a career. In this regard, early school leavers (who had been out of school the longest) fared better in the late teenage years.

- However, between 37 and 46 per cent of employed non-completers had not attained the type of jobs they would like as a career by 2000. Compared with males, females experienced higher levels of job mobility and were less likely to be in the types of jobs they would like as a career.

A final comment on school non-completion

In some regards during the late teenage years, non-completers fare better than completers who do not enter higher education: they are more likely to be in full-time employment, receive higher hourly earnings, display greater job stability, and report being in the type of job they would like as a career. However, on other counts non-completers experience less successful transitions from school than those of completers: compared with completers not in higher education, male non-completers are more likely to be unemployed, and female non-completers are more likely to be outside the labour force. Taken together, the results indicate that during the late teenage years, school non-completers are not unequivocally 'worse off' than school completers who do not enter higher education. Further analysis at a later time point may reveal different and more substantial differences between the labour market activities of these groups of non-completers and completers.

School Leavers in Australia: Profiles and Pathways

1. INTRODUCTION

The progression from school to work is one of the most important transitions to adulthood that young people make. Three decades ago, the majority of teenagers in Australia left school before the completion of Year 12, and moved relatively quickly into stable full-time employment. Since the mid 1970s, changes in the youth labour market and increases in unemployment have made the transition more difficult. At the same time, substantial increases in educational participation have increased the age at which most young people enter the labour market.

Today, the transition from school to work is not necessarily linear; many young people move in and out of a range of education, training, work and non-labour market activities during the post-school years. There are concerns that a substantial proportion of young people, especially those who do not complete secondary school, are at risk of experiencing a transition characterised by long periods of unemployment, or movement between low-skilled, part-time and casual jobs. It is feared that such experiences will have negative repercussions for their future labour market activities, and more broadly, for their social participation, health and well-being.

This report focuses on recent school leavers, with a particular emphasis on school non-completers. A lack of qualifications may place this group at a disadvantage when they attempt to enter the labour market. Consequently, it is important to examine who these young people are, and to identify those at risk of experiencing problems in the transition from school to work. We address the following broad issues:

1. ***Influences on the non-completion of school:*** Who leaves school before the completion of Year 12? In particular, we assess whether the factors that influence non-completion have changed over time.

2. ***Differences between early and later school leavers***: In most Australian states and territories, the minimum school leaving age is 15, and Year 10 represents the last year of compulsory schooling for the majority of young people. We assess whether there are differences between the characteristics of early school leavers (who do not progress beyond Year 10) and later school leavers (who commence Year 11 but leave before the end of Year 12).

3. ***The views of young people:*** What are the reasons given by young people themselves for not completing secondary school?

4. ***The post-school activities of young people:*** What are the education, training and labour market activities of school non-completers during the early post-school years? How do these differ from the activities of young people who complete Year 12?

5. ***Influences on early labour market outcomes***: Do social background and schooling influence the early labour market outcomes of school non-completers?

First, we provide a brief overview of the changing educational and labour market context in which young people find themselves.

The changing educational and labour market context: 1980 to 2000

School leaving: A dramatic change in the patterns of school completion has occurred over the past two decades. Apparent retention rates rose rapidly during the 1980s and early 1990s, from 35 per cent in 1980 to a peak of 77 per cent in 1992 (ABS, 1984-2002). Thus, while leaving before

Year 12 was the norm 20 years ago, today the majority of students complete Year 12. The rapid decreases in school non-completion rates have been attributed to factors such as changes in school curriculum to accommodate a wider range of students, increased Commonwealth financial assistance for young people in low income families, a recognition by young people and their families of the growing importance of educational qualifications, and in the early 1990s, high unemployment rates prompting some would-be school non-completers to remain at school (Lamb et al, 2000:11-13; Lewis & Koshy, 1999; Wooden, 1998:34-35). Coinciding with improvements in the youth labour market, apparent school retention rates declined to 73 per cent between 1992 and 2001 (ABS, 1998-2002).

A number of reports have reviewed the literature on the characteristics of school non-completers (Batten & Russell, 1995; Lamb et al, 2000: 14-17; Long, Carpenter & Hayden, 1999). These studies concluded that school non-completers are more likely to be male, from lower socioeconomic, rural and English-speaking backgrounds, from government schools, and to have low literacy and numeracy levels. Reasons given by young people for school non-completion include both negative factors relating to schools and school culture, and positive reasons such as a desire to obtain an apprenticeship or other paid work. It is necessary to update these studies in order to assess whether there have been changes in the sociodemographic profile of non-completers and their motivations for leaving.

Apprenticeships, traineeships and New Apprenticeships: Traditionally, apprenticeships have provided an alternative to senior secondary school, especially for males seeking to enter skilled trades and related occupations. Apprenticeships are characterised by a contract of employment and training, typically of four years duration, with a structured training program leading to a trade certificate or equivalent. Traineeships were established in 1985 to provide training in a wider range of occupations, and to increase training opportunities for females. The initial target group for traineeships was school non-completers, and traineeships were intended to provide 'a stepping stone into primary labour market jobs' (Kirby, 1985:114). Traineeships ranged from one to four years in duration, with most involving only one year of training. In 1998, apprenticeships and traineeships were brought together under the 'New Apprenticeships' system. New Apprenticeships vary in length (from less than one year to four years), and in the level of qualifications they lead to (from AQF Certificate I level to advanced diplomas). In June 2000, 20 per cent of New Apprentices were in contracts of training of up to one year in duration, 37 per cent of contracts were between one and three years in duration, and 44 per cent were over three years in duration. The majority (75 per cent) were at Certificate III level (NCVER, 2001:71-72).

Since the early 1980s, there have been two periods of growth in apprenticeships, traineeships and New Apprenticeships: the late 1980s/early 1990s (mainly due to an increase in apprentice numbers); and from 1995 to 2000 (mainly due to an increase in trainee numbers). Although the proportion of teenage apprentices, trainees and New Apprentices has fallen since the removal of age restrictions in 1992, the proportion of all 15 to 19 year olds participating in these schemes has risen slightly in recent years, from 5.7 per cent in 1995 to 7.5 per cent in 2000 (NCVER, 2001:88-89).

Lamb and McKenzie (2001:27-29) showed that school non-completers were more likely than school completers to rely on apprenticeships in the transition to full-time work. Their research was based on young people who left school during the late 1980s and early 1990s, and who did not obtain a university degree or TAFE associate diploma or above. They found that nearly one in three male non-completers obtained an apprenticeship after leaving school and then moved into full-time work, compared to one in six male school completers without university qualifications.

The youth labour market: Over the past couple of decades, the youth labour market has also undergone considerable change. The full-time labour market participation rates of teenage males fell from over 50 per cent in 1978, to 27 per cent by August 1997. A similar pattern was evident

for girls, with full-time labour market participation rates[1] declining from 45 per cent in 1978 to less than 20 per cent in 1997. Over the same period, part-time labour force participation rates for 15 to 19 year old males steadily increased from 10 per cent to 26 per cent, while for teenage girls, the rate rose from 13 per cent to 37 per cent (Wooden, 1998:34). This part-time and casual work is highly concentrated in relatively low skill occupations in relatively low paying industries with limited access to training and promotion opportunities (Wooden, 1998, 2000).

The decline in the full-time job opportunities for young people is often viewed as an indicator of a collapse of the teenage labour market. However, the growth in teenage part-time and casual employment should not necessarily be viewed negatively. This growth coincided with increases in educational participation, and much part-time and casual work is carried out by young people in combination with full-time study (Dawkins & Norris, 1995; Lewis & Mclean, 1999). For many students, such part-time work is a temporary means of financial support. For other young people not in full-time study, there is debate whether part-time work provides a stepping-stone to full-time work (Gaston & Timcke, 1999; Sweet, 1998:6-7).

So how are school non-completers faring within the changing youth labour market? There are two views regarding the labour market outcomes of non-completers: one pessimistic and the other cautiously optimistic.

The pessimistic view stresses that school non-completers are more likely than school completers to be unemployed, in part-time or casual work, or in low paying unskilled work with limited career prospects (Lamb et al, 2000; Lamb & Rumberger, 1999; McClelland et al, 1998). Movement between these activities, referred to as 'milling and churning', is also highlighted. Repeated spells of unemployment during the formative years in the labour market may have a 'scarring' effect for young people's future prospects, and in this regard, non-completers are seen to be particularly disadvantaged. Additionally, the types of part-time jobs filled by teenagers do not provide the types of training programs that facilitate career progression. For non-completers in part-time employment, the early cessation of formal education coupled with a lack of exposure to structured work-based training may impede skills acquisition, reducing future employability (Lamb et al, 2000:9).

There is evidence to support the pessimistic view. Lamb et al (2000) documented high rates of unemployment among school non-completers in the late 1980s and early 1990s. Young people are particularly vulnerable to increases in unemployment during times of economic downturn (Wooden, 1998), and a lack of labour market experience is becoming a more important influence on subsequent unemployment (Marks & Fleming, 1998a). The decline in the manufacturing industry which historically was a large employer of young people, growth in part-time work, and increased demand for persons with tertiary qualifications (Wooden, 2000) also signal poorer labour market prospects for school non-completers.

The second approach is more optimistic. It argues that most non-completers do find jobs, gain labour market experience, and establish career pathways. For example, in a recent analysis of young people who were in Year 9 in 1995, Marks and Fleming (1999) found that 72 per cent of non-completers had full-time jobs, and a further 8 per cent were in part-time jobs in the year after leaving school. These non-completers had overwhelmingly left school for positive work-related reasons.

Recent improvements in overall unemployment rates have had positive consequences for non-completers. Among the adult population (aged 20 and above), unemployment rates dropped from over 10 per cent in 1993 to around 6 per cent in 2000. Among 19 year olds, unemployment rates

1 The full-time labour force participation rate for 15 to 19 year olds is the proportion of teenagers either in full-time work or looking for full-time work.

also decreased over the same period, from 21 per cent to 10 per cent (ABS, 1993-2000). A comparison of two recent reports suggests that the state of the economy has an important influence on unemployment among non-completers. Lamb et al (2000:33) reported unemployment rates in the first year after leaving school of around 30 per cent for the non-completers who had been in Year 10 in the late 1980s, and just under 40 per cent for non-completers who had been in Year 10 during the recession in 1992-3. In contrast, for non-completers who had been in Year 9 in 1995, the level of unemployment in the first year out of school was only 11 per cent (Marks & Fleming, 1999). These figures suggest a substantial improvement in the employment prospects of non-completers with a stronger economy.

Nevertheless, non-completers do not have the same labour market outcomes as young people who complete Year 12 and subsequently undertake higher education. Taking the workforce as a whole, higher education is associated with a lower unemployment rate, higher status occupations, and substantially higher lifetime earnings. Furthermore, ongoing changes in the labour market have favoured more skilled workers, and demand for low skilled jobs is more sensitive to fluctuations in the business cycle (Wooden, 2000).

Finally, a discussion of the causes and consequences of school non-completion should consider gender. It is sometimes argued that the main reason for the higher levels of non-completion among boys is that they have more employment opportunities than girls and experience superior labour market outcomes once they are out of school (eg Collins et al, 2000; Kirby, 2000:49-50,57; Teese, 2000:51). As in the adult labour market, there are marked gender differences in the outcomes of young people, and these must be taken into account in any analysis of school non-completion and its consequences.

The current report

This report focuses on factors associated with school non-completion, and the early labour market experiences of school non-completers. The analysis is based upon the cohort of young people who were in Year 9 in 1995, and information on the activities of the cohort members up to late 2000 are analysed. In 2000, the modal age of this cohort was 19. Those who had not completed school had been in the labour market for up to five years, and the majority of completers had been out of school for two years. The data and analytic techniques utilised in this report are described in further detail in the following chapter (Chapter 2).

Chapter 3 compares the profiles of four types of school leavers: those who left by the end of Year 10 (early school leavers); those who commenced Year 11 but did not complete Year 12 (later school leavers); those who completed Year 12 but did not enter higher education in the first two post-school years; and those who completed Year 12 and entered higher education. The influences of a range of social background and educational factors on non-completion are examined.

Chapter 4 focuses on the reasons given by non-completers for leaving school. Examining these subjective assessments provides further insight into the influences on school non-completion.

The remainder of the report is concerned with the post-school education, training and labour market activities of the cohort, with an emphasis on assessing whether school non-completers differ from school completers on a range of labour market outcomes.

In Chapter 5, the main activities of early school leavers, later school leavers and school completers are described. Data are presented annually, from late 1997 to late 2000. Chapter 6 describes how young people moved between these activities during this period. Emphasis is placed on identifying the size of the sub-group of young people who experience problematic transitions, and on the social and educational correlates of being 'at risk'.

Chapters 7 to 9 examine in further detail the labour market outcomes of early school leavers, later school leavers, and completers not in higher education. Unemployment is discussed in Chapter 7, while two aspects of employment (occupations and earnings) are the subjects of Chapter 8. In both of these chapters, the influences of social background, schooling, post-school education and training, and labour market experience on labour market outcomes are analysed. Chapter 9 focuses on job stability and work satisfaction.

Chapter 10 provides an overview of the results presented in the report and a discussion of their policy implications.

2. DATA AND METHODS

This chapter provides an overview of the data and analytic techniques used in this report. In the first sections, the data and measures are outlined. We then provide an overview of the analytical techniques: both descriptive statistics and multivariate. We discuss why multivariate analyses are necessary, the question of model specification (that is, what factors to include in the analyses), the particular multivariate procedures used, and the interpretation of the results.

Data

The data for this report are drawn from the *Longitudinal Surveys of Australian Youth* (LSAY) project, which follows the experiences of young people as they move from school into post-secondary education, training and work. A number of cohorts of young people have been surveyed as part of the LSAY program. The data for this report focus on the cohort of students who were in Year 9 in 1995, and follow their experiences up until late 2000. The initial sample included 13 613 students from all States/Territories and school sectors, with approximately equal numbers of males and females. The students were initially surveyed in their school in 1995, where they completed a questionnaire about themselves and their families, and undertook reading comprehension and numeracy tests. Further data have been collected from this cohort on an annual basis. Additional details on the LSAY project are provided in Appendix 1.

Analyses are restricted to persons who remained in the active sample until 2000 (n=7887). All analyses have been weighted to correct for both the original sample design and attrition. It is necessary to correct for attrition, as some groups (including school non-completers) are less likely to remain in the sample over time. A post-stratification weighting schema compensates for differential attrition. The weighted estimates of school non-completion for the active sample in 2000 are slightly higher than the corresponding unweighted estimates (Table 1). A technical report by Marks and Long (2000) provides further details on non-respondents and the weighting procedure.

Longitudinal data are especially valuable in investigating young people's educational and labour market outcomes, and for linking this information to their social backgrounds and prior experiences. The data used in this report provide the most up-to-date and detailed information on school leavers in Australia. At the time of the 2000 interview, the modal age of the study participants was 19 years. Non-completers had been out of school for up to five years, and the majority of completers had been out of school for two years.

Table 1 The sample size, 2000 (numbers and column per cent)

Category of school Leaver	Operational definition	Unweighted		Weighted	
		n	%	n	%
Non-completers					
Early school leavers	Left before commencement of Year 11	536	6.8	677	8.6
Later school leavers	Left between commencement of Year 11 and August of Year 12	990	12.6	1012	12.8
Completers					
No higher education	Remained in school until August of Year 12; no higher education	3055	38.7	3239	41.1
Higher education	Remained in school until August of Year 12; in higher education in 1999 and/or 2000	3306	41.9	2959	37.5
Total		7887	100.0	7887	100.0

Defining and measuring school completion status

The literature is inconsistent in the manner in which persons who do not complete school are defined and measured[2]. The terminology used in this report to describe *school leavers* is illustrated in Figure 1. We refer to all students who leave school before the completion of Year 12 collectively as *non-completers*. Within this group, we distinguish between those who leave school on or before completion of Year 10 (*early school leavers*), and other non-completers who leave school after the commencement of Year 11 but before the end of Year 12 (*later school leavers*). This distinguishes between those who have only participated in what are commonly considered the compulsory years of schooling (up to Year 10), and those who received some post-compulsory schooling.[3]

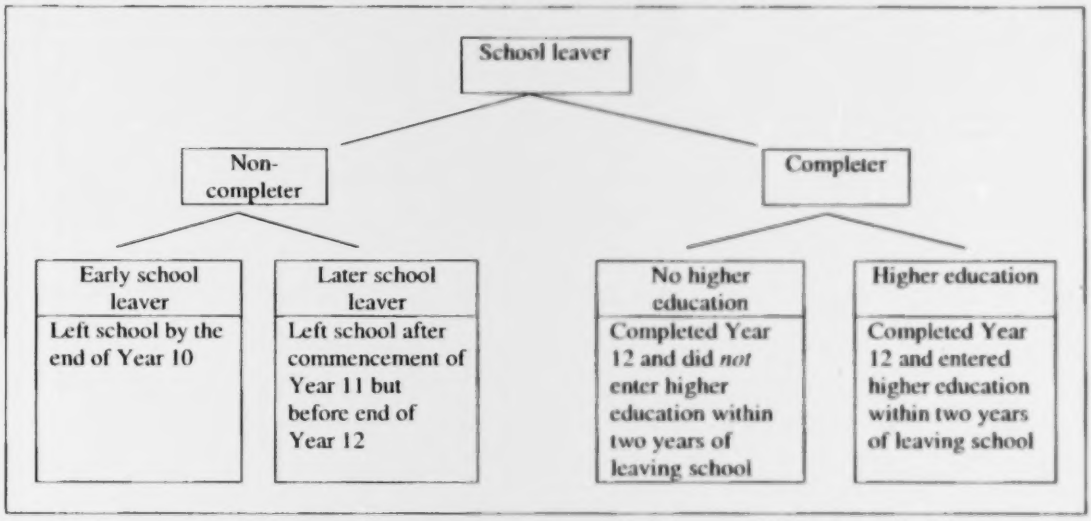
School leaver
Non-completer
Completer
Early school leaver
Left school by the end of Year 10
Later school leaver
Left school after commencement of Year 11 but before end of Year 12
No higher education
Completed Year 12 and did *not* enter higher education within two years of leaving school
Higher education
Completed Year 12 and entered higher education within two years of leaving school

Figure 1 Terminology used in this report to describe school leavers

We refer to all students who leave school after August of Year 12 as *completers*. Within this group we distinguish between those who did or did not enter higher education upon the completion of Year 12 or in the following year.

Approximately 9 per cent of the cohort are classified as early school leavers, a further 13 per cent are classified as later school leavers, 41 per cent are classified as school completers who had not entered higher education, and 38 per cent are classified as school completers who entered higher

2 For example, previous LSAY Research Reports have employed various terms to describe young people who do not complete senior secondary school, and sometimes the same term has been used to refer to different groups. The term 'early school leaver' has been used narrowly to refer to those who left school before the commencement of Year 11 (Marks & Fleming, 1999), and more broadly to refer to 'any student who ever dropped out of school' (Lamb & McKenzie, 2001; Lamb & Rumberger, 1999). Recently, however, the term 'non-completer' has been used to refer to the broader latter group (Ball & Lamb, 2001; Lamb et al, 2000).

3 The minimum school leaving age in Australian states and territories is 15 years, with the exception of Tasmania where it is 16 years. However, not all persons below the minimum school leaving age are enrolled (Eldridge, 2001).

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education in the year after Year 12 or in the following year (see Table 1)[4]. The focus of this report is on the two groups of non-completers and how they differ from completers not in higher education. A profile of the fourth group - completers in higher education - is also provided for interested readers.

Other measures used in this report

Figure 2 provides a summary of the other major variables employed in this report. In the first half of the report, three groups of variables are used in the analysis of non-completion: social background characteristics; school-related characteristics; and the reasons students give for school non-completion. The social background factors include gender, parental occupation and educational level, indigenous status, language background and region. The school-related factors are school sector, and achievement in literacy and numeracy in Year 9. The reasons students give for leaving school include both school-related and work-related factors.

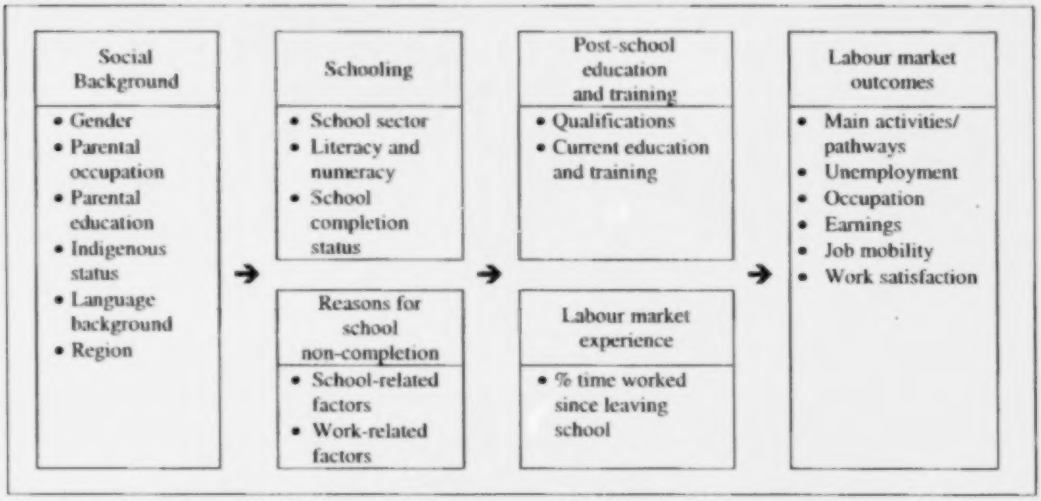

Figure 2 Summary of measures used in the report

The second half of the report focuses on the post-school experiences of non-completers. These include participation in various forms of education and training, main activity at the time of interview, movement between activities, experiences of unemployment, and for those in paid work, the type of occupation, earnings, job mobility and work satisfaction. The influence of social background, schooling, post-school education and training, and labour market experience on a number of these labour market outcomes is examined.

A description of the measurement of these factors is provided in Appendix 3. The unweighted and weighted distributions of the variables are presented in Tables at the end of this Appendix.

4 These estimates differ slightly from estimates provided in earlier LSAY Research Reports that have analysed the same youth cohort, and from the apparent retention rates published by the Australian Bureau of Statistics. A comparison of these measures is provided in Appendix 2.

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Describing the characteristics of school leavers

There is a variety of ways that differences in school non-completion between groups can be summarised. Table 2 presents a hypothetical result for school non-completion by gender for two cohorts. In this example, the ***absolute non-completion rate*** for Cohort 1 was 40 per cent, with 35 per cent of males and 45 per cent of females not completing Year 12. There are three ways in which these hypothetical gender differences can be described (Long, Carpenter and Hayden, 1999:38):

- Report the difference as 10 percentage points. This is the ***absolute percentage difference*** between males and females for school non-completion. When the text refers to a 'gap' of so many percentage points in participation rates, it is referring to the absolute percentage differences.

- Report the ***ratio*** of female to male non-completion (45/35 = 1.29). That is, females leave before the completion of secondary school 1.29 times more than males. Similarly it can be reported that females are 29 per cent more likely to be non-completers than males. This is the ***relative percentage difference*** between males and females.

- Report the ratio of the odds of a female not completing rather than completing school (45/55 = 0.82) to the odds of a male not completing rather than completing school (35/65 = 0.54). The ratio of these two ratios is called the ***odds ratio*** (0.82/0.54 = 1.52).

Table 2 Percentage of cohort who were non-completers (for two hypothetical samples)

	Cohort 1	Cohort 2
Total Cohort	40	80
Gender		
Male	35	75
Female	45	85

Odds ratios are always positive. An odds ratio equal to one signifies no effect of the variable concerned on non-completion. Odds ratios above one indicate an increased likelihood of non-completion and odds ratios below one indicate a decreased likelihood of non-completion. The further an odds ratio is from one, the stronger the relationship.

This measure has several desirable properties. First, it uses more information in describing the association between two variables than measures of percentage differences; in this example being male, being female, not completing, and completing. Thus it is a more 'complete' measure. Second, it has the property of 'marginal invariance', that is, the strength of an association between two measures is not affected by their distributions. Third, odds ratios can also be used to interpret the effects of factors on non-completion in a multivariate context (see below), which is not possible with other summary measures. Consequently, in this report we use odds ratios in preference to ratios when describing relative differences between groups.

Changes over time

Two methods are used to measure change: changes in absolute percentage differences; and changes in relative differences (measured by odds ratios).

- *Absolute change*: By comparing the differences in rates of non-completion between groups of young people, it is possible to assess whether or not the gaps in non-completion between

categories of young people changed in absolute terms over the period (Lamb et al, 2000:19). To take the hypothetical example presented in Table 2, the absolute percentage difference in non-completion rates between males and females did not change; it was 10 percentage points in both cohorts.

- *Relative change*: One problem with relying solely on a measure of absolute change is that the changing representation of different groups among both non-completers and the total population of young people are not taken into account. A comparison of the odds ratios between Cohort 1 (1.52) and Cohort 2 (1.89), suggest that relative differences increased.

Our hypothetical example demonstrates that the two approaches to measuring change can yield different answers about whether differences between groups have increased, decreased or remained unchanged. In this report, both measures are used since the exclusive use of one measure may lead to misleading interpretations.

Multivariate analysis

Multivariate techniques are used to identify the influence of various factors on school non-completion (Chapter 3) and early labour market outcomes (Chapters 6-8). There is no single determinant of school non-completion or labour market outcomes. Rather, a range of factors is likely to be influential. It is important to include the major influences in a multivariate analysis rather than examining a single factor in isolation, for the following reasons.

First, multivariate analyses permit an assessment of the net effect of each factor included in the model. For example, indigenous students participate in education at lower levels than other students. Some of this difference is because, on average, indigenous students come from lower socioeconomic backgrounds. By controlling for socioeconomic factors, the effect of being an Aboriginal or Torres Strait Islander, net of differences in the socioeconomic backgrounds of indigenous and non-indigenous students, can be assessed. This is important because it gives an indication of the extent that socioeconomic factors account for differences between indigenous and non-indigenous students, and thus can help identify policy priorities.

Second, multivariate analyses provide an understanding of the process by which a factor influences non-completion or early labour market outcomes. They allow an assessment of whether a particular factor has a direct influence or whether its effects are indirect, via intermediary (mediating) variables. For example, multivariate analyses can address whether the different labour market outcomes of various sociodemographic groups are partially or totally the result of differences in educational attainments.

For this report, multivariate analyses were performed to understand whether bivariate relationships can be attributed to other factors. For example, can differences in school non-completion between occupational background groups be accounted for by performance in the Year 9 literacy and numeracy tests, the type of school attended and/or other factors?

Model Specification: The use of multivariate analysis raises the question of model specification; that is, which factors should be included in the analysis. The multivariate analyses of the influences on school non-completion (reported in Chapter 3) are based upon a model that includes the most theoretically and empirically important influences. The key variables identified for inclusion have been selected on the basis of extensive reviews of the literature, earlier ACER analyses of longitudinal data, and their policy relevance (see Long, Carpenter & Hayden, 1999). The model comprises gender, parental occupation and education, language background, indigenous status, region, school sector, and literacy and numeracy achievement in Year 9. The multivariate analyses of the influences on early labour market outcomes (reported in Chapters 6-

8) include social background, literacy and numeracy levels, schooling, participation in post-school education and training, and labour market experience (see Figure 2).

Logistic regression: In this report, logistic regression is used to assess the influences on school non-completion (Chapter 3), pathways from school (Chapter 6) and unemployment (Chapter 7). Logistic regression is an appropriate analytic technique when the dependent (or outcome) variable is dichotomous. The sign of the logistic coefficient indicates if the factor has a positive or negative influence on the dependent variable. Both unstandardised and standardised logistic regression coefficients are presented in tables.

Unstandardised logistic regression coefficients can be converted into *odds ratios* by taking the exponent of the logistic regression coefficient. It is important to note that odds ratios in the multivariate context are net effects; that is, an odds ratio is the effect of a factor on the dependent variable, having taken into account the influence of other factors. However in every other way the interpretation of these odds ratios is identical to that described above (page 9). Take an odds ratio of 2.0 derived from a logistic regression coefficient of 0.69 for the influence of a particular characteristic on non-completion. The odds ratio of two indicates that respondents with that characteristic are twice as likely to be non-completers (rather than completers) compared to respondents without that characteristic, net of other factors in the analysis.

Standardised coefficients are used to provide an indication of the strength of an influence They range from -1 to +1 and can be understood in a similar way to Pearson correlation coefficients. A standardised effect of 0 indicates no relationship. The closer an effect is to 1 (or -1), the stronger the relationship. Positive relationships have positive coefficients and negative relationships have negative coefficients.

The *significance tests* for logistic regression are the same as for other parametric statistics; that is, tests of the probability of the null hypothesis. Statistically significant estimates are indicated in the tables by asterisks if the probability of the null hypothesis is less than 0.05 (that is 5 chances in 100) (*), less than 0.01 (**), or less than 0.001 (***).

The unstandardised and standardised logistic regression coefficients and their statistical significance are presented in tables within the main text, and supplementary tables reporting the corresponding odds ratios are included in Appendix 4.

OLS regression: While logistic regression is appropriate for multivariate analysis when the dependent variable is dichotomous (such as completion/non-completion of school), ordinary least squares (OLS) regression is appropriate for multivariate analysis when the dependent variable is continuous. OLS regression is used in this report to analyse the influences on the occupational status and earnings of young people (Chapter 8). Both unstandardised and standardised regression coefficients are presented. An unstandardised regression coefficient represents the change in the dependent variable for a unit change in the independent variable. As in logistic regression, standardised regression coefficients can be used to assess the relative strength in the influence of various factors.

Standard errors, confidence limits and statistical significance: The results presented in the following chapters are survey estimates of population parameters. The standard error indicates the likely range within which the population parameter falls. A large standard error reflects a high degree of uncertainty of the point estimate or a wide range within which the population parameter could lie. A small standard error means that the population parameter is very likely to be close to the estimate obtained from the analysis of the survey data.

Standard errors are used to calculate confidence intervals. When the traditional 95 per cent confidence limits are used, sampling theory states that there is a 95 per cent chance that the

estimate of a population parameter lies within plus or minus 1.96 standard errors of the sample estimate. For example, if the mean occupational status score is 45 with a standard error of 1.0 then sampling theory indicates that we can be 95 per cent confident that the mean in the population from which the sample is drawn is between 43 (=45-1.96x1.0) and 47(=45+1.96x1.0).

Another important use of standard errors is as a guide to whether or not there is a statistically significant difference in the estimates between categories. Take, for example, a sample estimate of occupational status for females of 48 with a standard error of 1, and a mean for males of 43 with a standard error of 1. Because the 95 per cent confidence intervals do not overlap, we can be 95 per cent confident that there is a statistically significant difference in occupational status scores between males and females in the population from which the sample was drawn. (The 95 per cent confidence interval for females is between 46 and 50, compared with between 41 and 45 for males). However, if the standard error for males and females was 3, then the mean estimates of 48 and 43 would not be significantly different because there is considerable overlap in the confidence intervals. (In this case, the 95 per cent confidence interval for females is between 42 and 54, and for males is between 37 and 49).

3. SOCIODEMOGRAPHIC AND EDUCATIONAL INFLUENCES ON SCHOOL NON-COMPLETION

Introduction

Past research has been relatively consistent in finding that sociodemographic factors (such as gender, socioeconomic status, language background, and region) and educational factors (such as school sector, and achievement in middle schooling) are related to school non-completion (Collins et al, 2000; Lamb & Rumberger, 1999; Marks & Fleming, 1999; McIntyre et al, 1999; Misko, 1999). However, recent research examining trends in school leaving suggests that the influence of at least some of these factors changed between the early 1980s and the early 1990s. For example, gender differences in school non-completion increased, but the influence of socioeconomic background and school sector lessened (Lamb et al, 2000; Long, Carpenter & Hayden, 1999). The 1980s were characterised by a rapid increase in Year 12 retention rates. Since 1992, however, school retention rates declined slightly and then stabilised. In this context, it is of interest to assess whether the profile of school non-completers has continued to change.

We examine the influence of each of the following factors in turn: gender, socioeconomic background (parental occupational status and parental education), indigenous status, language background, region, school sector, and achievement in literacy and numeracy. For each factor, we first assess whether its influence on school non-completion has changed over the past two decades, and then provide a detailed analysis of its influence during the late 1990s.

The over-time analysis is based upon a comparison of two broad groups: *non-completers* and *completers*. In order to measure changes in the profiles of these groups, we present results from four cohorts of young people who left school between the early 1980s and the late 1990s. By using recent LSAY data, we are able to extend the time series developed by Lamb, Dwyer and Wyn (2000), which was based upon three cohorts drawn from the *Australian Longitudinal Survey* and the *Australian Youth Survey*. The three older cohorts comprise young people who were in Year 10 in the early 1980s, the late 1980s, and in the early 1990s; the results pertaining to these cohorts are drawn from Lamb, Dwyer and Wyn's (2000) report. The youngest cohort comprises young people who were in Year 9 in 1995, and the results pertaining to this group are based upon new analysis of the LSAY data. Each of the four cohorts represents a distinctive period in the history of Australian secondary schooling. The oldest cohort (who were in Year 10 in 1980/81) entered secondary school at a time when the majority of young people did not stay on to complete Year 12. The 1988/89 Year 10 cohort was in junior secondary school at a time when staying on to Year 12 had become the norm. The 1992/3 Year 10 cohort was in junior secondary school at the time when Year 12 retention rates peaked. The youngest cohort was in Year 9 in 1995, a time when retention rates had stabilised after declining slightly. The data are presented graphically throughout the chapter, and for interested readers the corresponding percentages and odds ratios are reported in Appendix 4 (Table 34 & Table 35).

The more detailed analysis of recent influences on school leaving (in the mid to late 1990s) is based upon data from the 1995 Year 9 cohort. Marks and Fleming (1999) used these data to develop a profile of early school leavers. The current report extends their analysis by developing profiles of later school leavers, those who completed Year 12 but did not enter higher education within two years of leaving school, and those who completed Year 12 and enrolled in university[5]

5 School completers who do not enter higher education are rarely examined separately. More typically, they are either combined with the group of completers who participate in higher education (for example, in analyses of school completion); or combined with school non-completers (for example, in analyses of participation in higher education). However, the results presented in this report show that school completers who do not enter higher education are quite different from both the two non-completer groups and the school completers who subsequently participate in higher education.

(Table 3; see also Appendix 4, Table 36 - Table 38). We then move beyond a broad description of patterns of school leaving, to an assessment of the influence of particular factors on early and later school leaving, net of other key factors (Table 5). Gender differences in the influences on early and later school leaving are also reported (Table 4 & Table 5).

Table 3 and Table 4 are based upon the total 1995 Year 9 sample. They are used to provide a description of the proportion of specified social groups (for example, girls) who were early school leavers, later school leavers, school completers who did not subsequently undertake higher education, and completers who entered higher education. When we discuss the odds of *early* school leaving rather than staying on to commence Year 11, we are also referring to the total sample.

However, it is important to note that our discussion of the influences on *later* school leaving is based upon the subset of young people who commenced Year 11, since only those who commenced Year 11 remained 'at risk' of becoming a later leaver. The bivariate odds ratios relating to later school leaving that are discussed throughout the chapter cannot be directly calculated from Table 3 and Table 4, as these tables are based upon the total sample. The odds ratios, and the sub-sample upon which they are based (those who commenced Year 11), are reported in a supplementary table in Appendix 4. The multivariate results pertaining to later leaving, reported in Table 5, are also based upon analysis of the subset of respondents who commenced Year 11.

Similarly, both early school leavers and later school leavers who did not complete Year 12 are excluded from direct entry into higher education. Consequently, results describing the odds of not entering higher education (rather than entering higher education) are based upon an analysis of the completer sub-sample.

These analyses can be understood in terms of educational branching points: early school leaving versus continuing to Year 11; later school leaving versus completing Year 12; and among the school completer group, not entering higher education versus entering higher education. In our descriptions of the results, emphasis is placed upon the first two branching points. This educational transitions approach has its origins with Mare (1980, 1981) and has been used extensively in educational research.

In order to facilitate comparisons with the two previous LSAY Research Reports on participation in schooling (Lamb et al, 2000; Marks & Fleming, 1999), it has been necessary to measure some of the sociodemographic and educational factors in more than one way. In particular, parental occupation, parental education level, language background, region, and achievement in literary and numeracy are each measured by multiple indicators. A description of each of these variables is provided in Appendix 3.

Gender

Trends: Up to the mid 1970s, boys were more likely than girls to complete senior secondary school. In the 1970s, this pattern reversed, and boys became more likely than girls to leave before the completion of secondary school. A gender gap in school non-completion of about 10 percentage points is evident throughout the 1980s and 1990s (Figure 3). For example, among students who were in Year 10 in the early 1980s, 62 per cent of males compared with 51 per cent of females did not stay on to complete Year 12, a gap of just over 10 percentage points. By the mid to late 1990s, school non-completion rates for both males and females had decreased markedly (to 26 per cent for males and 16 per cent for females), but the absolute gender gap remained similar.

Table 3 School completion status, by sociodemographic and educational group, Year 9 cohort of 1995 in 2000 (row per cent)

	N	Non-completers		Completers	
	(weighted)	Early school leaver	Later school leaver	No higher education	Entered higher education
Total cohort	7887	9	13	41	38
Gender					
Male	3854	11	15	42	32
Female	4033	6	10	41	43
Parental occupational group					
Professional/managerial	3089	6	9	36	50
Clerical /sales/personal service	1002	7	12	42	40
Skilled manual	1461	12	16	44	28
Semi/unskilled Manual	1454	10	16	45	29
Parental education level					
Very high: > 1 SD above mean	1358	4	7	30	59
High: Mean to 1 SD above mean	1580	9	12	42	37
Low: Mean to 1 SD below mean	2413	8	13	42	36
Very low: > 1 SD below mean	2537	11	16	45	27
Indigenous status					
Indigenous	166	20	26	31	23
Non-indigeous	7238	8	12	41	38
Language background (home lang)					
English	6795	9	14	42	36
Other	845	4	6	37	52
Region					
Metropolitan	4348	6	11	41	42
Regional	1916	10	16	41	33
Rural/Remote	1622	14	15	41	29
School sector					
Independent	939	4	7	30	59
Catholic	1567	6	6	39	48
Government	5381	10	16	43	31
Literacy & numeracy (Year 9)					
Very high: > 1 SD above mean	1141	2	6	23	70
High: Mean to 1 SD above mean	2980	5	10	39	47
Low: Mean to 1 SD below mean	2158	10	16	48	26
Very low: > 1 SD below mean	1608	18	20	49	13

Notes: SD=standard deviation.

N's sum differently due to varying student response.

Row percentages may not sum to 100 due to rounding error.

The weights used to correct for sample design and attrition have been updated since the release of Marks and Fleming's (1999) report on early school leaving. Consequently, the percentages for the early school leaver group may differ slightly from those published in the earlier report.

Table 4 School completion status of males and females by sociodemographic and educational group, Year 9 cohort of 1995 in 2000 (per cent)

	Males				Females			
	Non-completers		Completers		Non-completers		Completers	
	Early school leaver (n=416)	Later school leaver (n=591)	No higher ed (n=1604)	Entered higher ed (n=1243)	Early school leaver (n= 262)	Later school leaver (n=421)	No higher ed (n=1634)	Entered higher ed (n=1716)
Total cohort	11	15	42	32	6	10	41	43
Parental occupational group								
Professional/managerial	7	11	38	44	4	7	34	55
Clerical /sales/personal service	9	14	42	35	5	9	43	43
Skilled manual	15	19	44	22	8	13	44	34
Semi/unskilled manual	12	18	45	25	8	14	45	32
Parental education level								
Very high: > 1 SD above mean	7	7	33	53	2	6	27	65
High: Mean to 1 SD above mean	11	14	43	33	8	10	41	42
Low: Mean to 1 SD below mean	10	17	42	30	6	11	42	41
Very low: > 1 SD below mean	13	19	44	24	9	13	47	31
Indigenous status								
Indigenous	15	30	33	22	24	23	30	23
Non-indigenous	11	15	42	33	6	10	41	43
Language background (home lang)								
English	11	16	42	30	7	11	41	41
Other	7	5	40	48	2	6	35	56
Region								
Metropolitan	8	13	41	38	4	8	40	47
Regional	12	19	44	25	8	14	38	40
Rural/Remote	19	19	39	23	10	12	43	35
School sector								
Independent	5	8	32	55	4	6	28	63
Catholic	7	7	41	44	5	5	38	52
Government	13	19	44	25	8	13	43	36
Literacy & numeracy (Year 9)								
Very high: > 1 SD above mean	3	6	25	66	1	5	20	74
High: Mean to 1 SD above mean	6	11	43	40	4	8	35	53
Low: Mean to 1 SD below mean	13	20	48	19	7	12	48	32
Very low: > 1 SD below mean	21	23	44	12	15	17	54	15

Notes: SD=standard deviation.

The row percentages for males and the row percentages for females may not sum to 100 due to rounding error.

The weights used to correct for sample design and attrition have been updated since the release of Marks and Fleming's (1999) report on early school leaving. Consequently, the percentages for the early school leaver group may differ slightly from those published in the earlier report.

Table 5 Influences on school non-completions (logistic regression coefficients)

	Persons		Males		Females	
	Early Leaving[1] (n=5669)	Later Leaving[2] (n=5312)	Early Leaving[1] (n=2622)	Later Leaving[2] (n=2408)	Early Leaving[1] (n=3215)	Later Leaving[2] (n=3064)
PANEL 1: Unstandardised						
Intercept	- 4.38***	-3.71***	- 3.76***	- 3.52***	- 4.66***	- 3.31***
Gender						
Female	.	.	.	.	.	.
Male	0.71***	0.55***	.	.	.	.
Parent occ status (ANU3/10)	- 0.09***	- 0.07**	- 0.08*	- 0.11***	- 0.11**	- 0.02
Parental education	- 0.06*	- 0.04*	- 0.02	- 0.04	- 0.13***	- 0.06*
Indigenous status						
Indigenous	0.72**	0.52†	.	.	.	.
Non-indigenous	.	.	.	.	.	.
Language background (home language)						
English	0.89***	1.43***	0.75*	1.89***	1.34**	0.84**
Other	.	.	.	.	.	.
Region						
Metropolitan	.	.	.	.	.	.
Regional	0.49***	0.27*	0.42*	0.17	0.64**	0.41**
Rural/remote	1.01***	0.35**	1.02***	0.58***	1.08***	0.19
School sector						
Independent	.	.	.	.	.	.
Catholic	0.35	- 0.53	0.25	- 0.50	0.41	0.62*
Government	0.50*	0.41*	0.74*	0.43*	0.22	0.41†
Literacy & numeracy (Yr 9)	- 0.80***	- 0.54***	- 0.88***	- 0.60***	- 0.73***	- 0.49***
PANEL 2: Standardised						
Gender						
Female	.	.	.	.	.	.
Male	0.19	0.15	.	.	.	.
Parent occ status (ANU3/10)	- 0.12	- 0.09	- 0.11	- 0.14	- 0.13	- 0.03
Parental education	- 0.08	- 0.06	- 0.02	- 0.06	- 0.18	- 0.08
Indigenous status						
Indigenous	0.05	0.03	.	.	.	.
Non-indigenous	.	.	.	.	.	.
Language background (home language)						
English	0.14	0.22	0.12	0.29	0.20	0.13
Other	.	.	.	.	.	.
Region						
Metropolitan	.	.	.	.	.	.
Regional	0.12	0.06	0.10	0.04	0.15	0.10
Rural/remote	0.23	0.08	0.23	0.13	0.24	0.04
School sector						
Independent	.	.	.	.	.	.
Catholic	0.08	- 0.12	0.05	- 0.11	0.09	0.14
Government	0.13	0.11	0.19	0.11	0.06	0.11
Literacy & numeracy (Yr 9)	- 0.41	- 0.27	- 0.47	- 0.30	- 0.36	- 0.23

1 Analysis based upon all respondents remaining in sample in 1999

2 Analysis based upon all respondents remaining in sample in 1999, who commenced Year 11.

† 0.10>P>0.05; * 0.05>P>0.01; ** 0.01>P>0.001; *** P<0.001

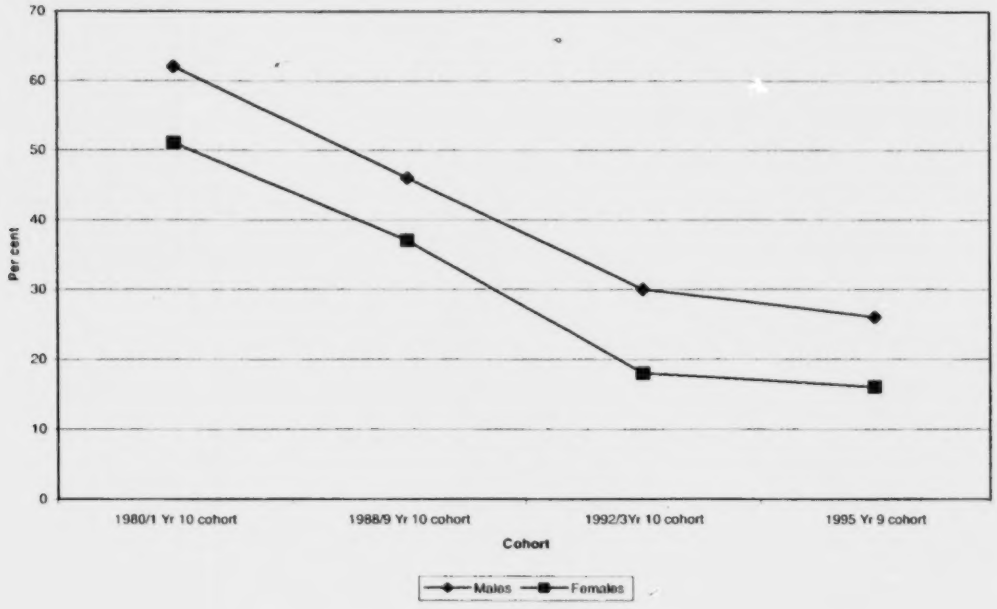

Figure 3 Gender and the non-completion of school in the 1980s and 1990s

While the *absolute* gap in the non-completion of school by boys and girls remained unchanged, the *relative* gap between boys and girls widened between the late 1980s and the early to mid 1990s. Lamb et al (2000:23) noted that 'proportionately, more non-completers were males in the mid-1990s than in the early 1980s'. This is evidenced in the male to female odds ratios for school non-completion throughout the period. For the two older cohorts (who were in Year 10 in the 1980s), the odds of males not completing senior secondary school were 1.5 to 1.6 times those for girls. For the 1992/93 cohort, the odds of males not completing school rose to 2.0 times those for girls. This upward trend was not maintained into the mid to late 1990s, suggesting that the relative gap in the non-completion rates of boys and girls had not further increased. (The male to female odds ratio for the 1995 Year 9 cohort was 1.8).

Recent patterns: In the mid to late 1990s, males were over-represented among both early and later school leavers. About 11 per cent of males compared with 6 per cent of females who were in Year 9 in 1995 had left school by the end of Year 10. Of those who commenced Year 11, 17 per cent of males and 11 per cent of females did not stay on to complete Year 12. The odds of males becoming non-completers were 1.7 times those of females during both the 'compulsory' years of schooling (up to the end of Year 10), and in the 'post-compulsory' years (Appendix 4, Table 36 & Table 37).

Gender differences are also evident in the patterns of higher education participation among those who completed Year 12. About 55 per cent of males who completed Year 12 in the late 1990s, compared with 48 per cent of female school completers, had *not* entered higher education by the year 2000 (an odds ratio of 1.4). This indicates that at each of the educational branching points considered in this chapter (the end of 'compulsory' schooling, completion of Year 12, and entry to higher education), males are less likely than females to progress to the next educational level.

Parental occupation

Young people's socioeconomic status is commonly measured in educational and sociological research by parental occupation and parental education. These represent separate dimensions of social background, both of which may exert an independent effect on school leaving. In this section we assess the influence of parental occupation, and in the following section we assess the influence of parental education.

Trends: Throughout the 1980s and 1990s, young people with parents in professional and managerial occupations were less likely than young people from other backgrounds to become school non-completers. Conversely, young people with parents in unskilled manual occupations experienced substantially higher rates of school non-completion.

The influence of parents' occupations on the amount of schooling undertaken by young people declined between the early 1980s and early 1990s, but this trend appears to have slowed in the 1990s. For example, the gap in non-completion among boys from professional/managerial and unskilled manual families fell from 38 percentage points in the early 1980s to 22 percentage points in the early 1990s, remaining around that level throughout the 1990s (Figure 4). The gap among girls fell from 45 percentage points in the early 1980s to 14 percentage points in the early to mid 1990s, and then showed a further slight decline to 11 percentage points by the mid to late 1990s (Figure 5).[6]

Recent patterns: By the mid to late 1990s, parents' occupations were still related to the amount of schooling undertaken by young people, albeit more weakly than in the early 1980s. In the 1995 Year 9 cohort, 26 per cent of young people whose parents were employed in unskilled manual jobs did not go on to complete Year 12, compared with only 15 per cent of those whose parents were professionals or managers (Table 3). Analysis of school leaving based upon a more detailed set of educational branching points - leaving school by the end of Year 10, leaving school before the completion of Year 12, and not entering higher education – reveals socioeconomic differences at each point.

For example, of the students in the 1995 Year 9 cohort, 10 per cent of those with parents employed in unskilled manual occupations left school on or before the completion of Year 10, compared with only 6 per cent of those with parents in professional or managerial occupations. Of the young people who passed the first branching point and commenced Year 11, 18 per cent of those with parents in unskilled manual occupations left school before the completion of Year 12, compared with only 9 per cent of those with parents in professional or managerial occupations. Finally, of the young people who stayed on to complete Year 12, 60 per cent of those with parents in unskilled manual occupations did *not* enter higher education in the immediate post-school years, compared with only 4[illegible] per cent of those with parents in professional or managerial occupations (Appendix 4, Table 36 - Table 38).

The socioeconomic patterning of educational participation (measured by odds ratios) is similar at each branching point. The odds of students from unskilled manual backgrounds not progressing beyond Year 10 were 2.0 times those of students from professional or managerial backgrounds. At each of the following two branching points, the corresponding odds ratios were 2.2 to 2.3 (Appendix 4, Table 36 - Table 38).

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6 This trend is confirmed by an examination of the unskilled manual to professional/managerial family background odds ratios for non-completion. For males, these declined from 5.0 in the early 1980s, to 4.1 in the late 1980s, further declining to 3.2 in the early 1990s, and remaining at 3.2 in the mid to late 1990s. The corresponding odds ratios for females were 7.1, 3.5, 3.5 and 2.3.

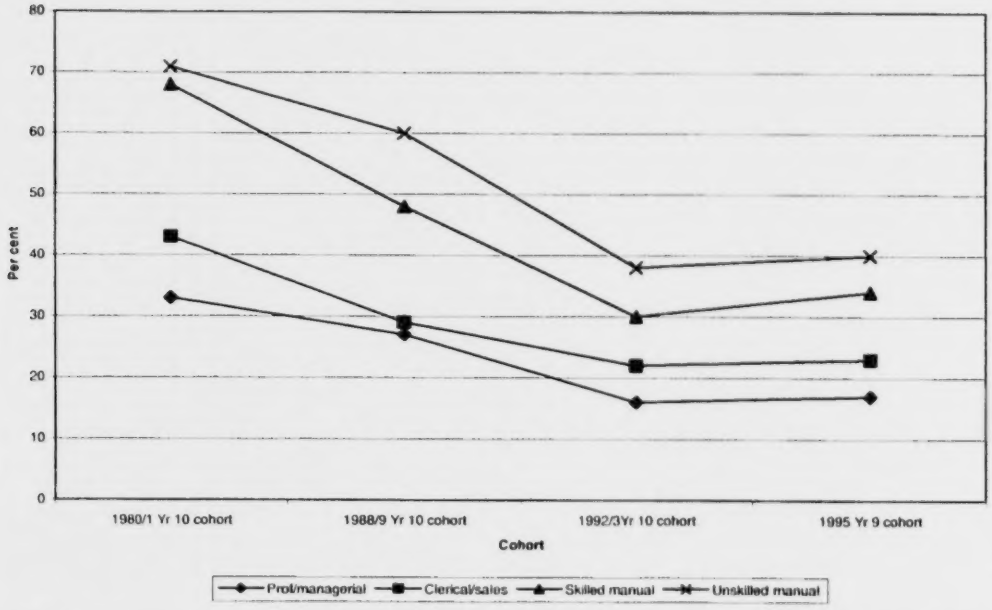

Figure 4 **Parental occupation and the non-completion of school in the 1980s and 1990s, males**

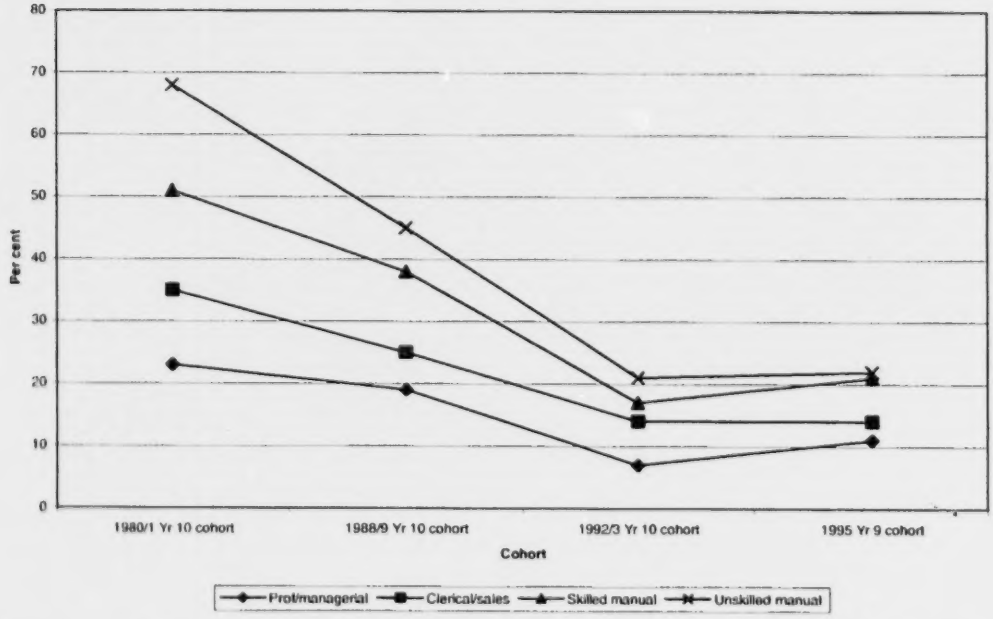

Figure 5 **Parental occupation and the non-completion of school in the 1980s and 1990s, females**

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In order to assess the influence of parental occupation on school non-completion, net of other factors, we incorporated a continuous measure of parental occupational status into a multivariate model. Some of the relationship between parental occupation and school leaving described above can be attributed to other factors included in the model.[7] Nevertheless, parental occupational status exerts a small but significant influence on school leaving, net of the effects of parental education, other sociodemographic factors and achievement in literacy and numeracy (Table 5). This suggests that among students with similar literacy and numeracy scores, students from low socioeconomic backgrounds are significantly more likely than students from higher socioeconomic backgrounds to leave school before the completion of Year 12.

Some gender differences are evident in the influence of parental occupational background on school non-completion. While parental occupation exerted a similar effect for both boys and girls on early school leaving in the mid to late 1990s, it had a significant influence for boys but not for girls on the process of later school leaving (Table 5).

Parental education

Trends: An examination of the relationship between parental education and school non-completion reveals a pattern of socioeconomic inequality similar to that revealed in the analysis of the effects of parental occupations. That is, young people from more highly educated families are less likely to leave school before the completion of Year 12. Again, there are indications that this relationship weakened throughout the 1980s and 1990s. In the early 1980s, 67 per cent of boys whose parents had attained secondary education or less did not stay on to complete Year 12, compared with only 25 per cent of boys whose parents were university educated, a gap of 42 percentage points. By the mid to late 1990s, this gap had declined to 14 percentage points (Figure 6). For girls, a similar decline is evident, with the gap in non-completion rates between girls from the most and least educated families falling from 33 percentage points in the early 1980s to 10 percentage points in the mid to late 1990s (Figure 7).

This trend is confirmed by an examination of the odds ratios. For boys in the early 1980s, the odds of students from the least educated families becoming non-completers were about 6.1 times those of students from the most educated families. This fell to 4.6 in the late 1980s, 3.2 in the early 1990s, and 2.5 in the mid to late 1990s. A similar trend is evident among girls, with the corresponding odds ratios declining from 4.3 in the oldest cohort, to 2.5 in the youngest cohort (Appendix 4, Table 34).

7 A comparison of the bivariate and the multivariate results shows that the effect of parental occupation is substantially reduced after controlling for the effects of other influences on non-completion. In the bivariate case, the effects occupational status on early and later school leaving are -0.16 and -0.15 respectively. After controlling for the other influences included in the multivariate model, the effects of parental occupational status declined to -0.09 and -0.07 respectively (Appendix 4, Table 36 and Table 37). This reduction in the effect of occupational status indicates that the bivariate association between occupational status and school leaving is to a large extent attributable to the correlation that occupational status has with other factors that influence school leaving. However, given the close association between parental occupational status and parental education, this finding is not surprising.

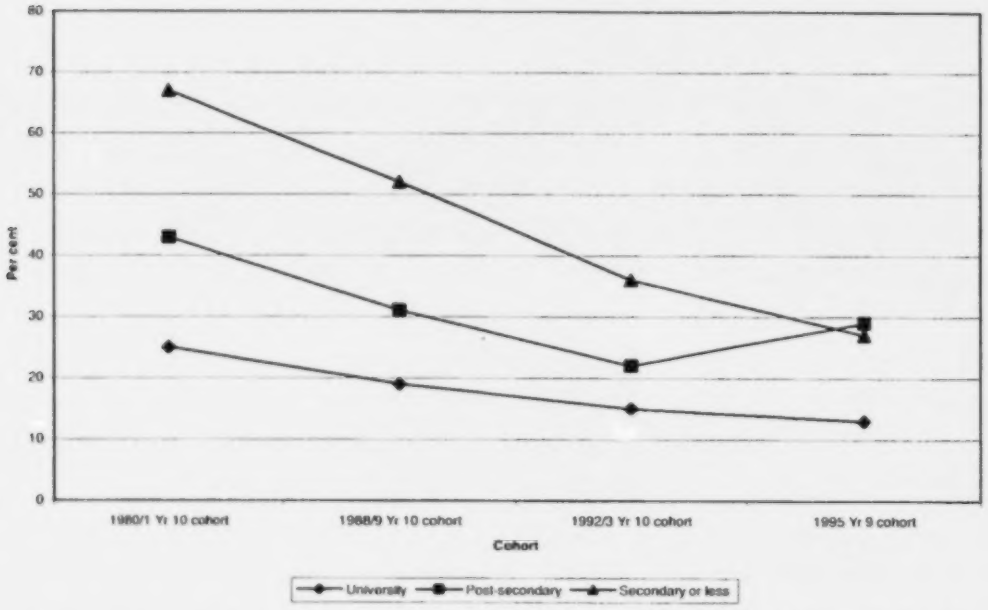

Figure 6 **Parental education and the non-completion of school in the 1980s and 1990s, males**

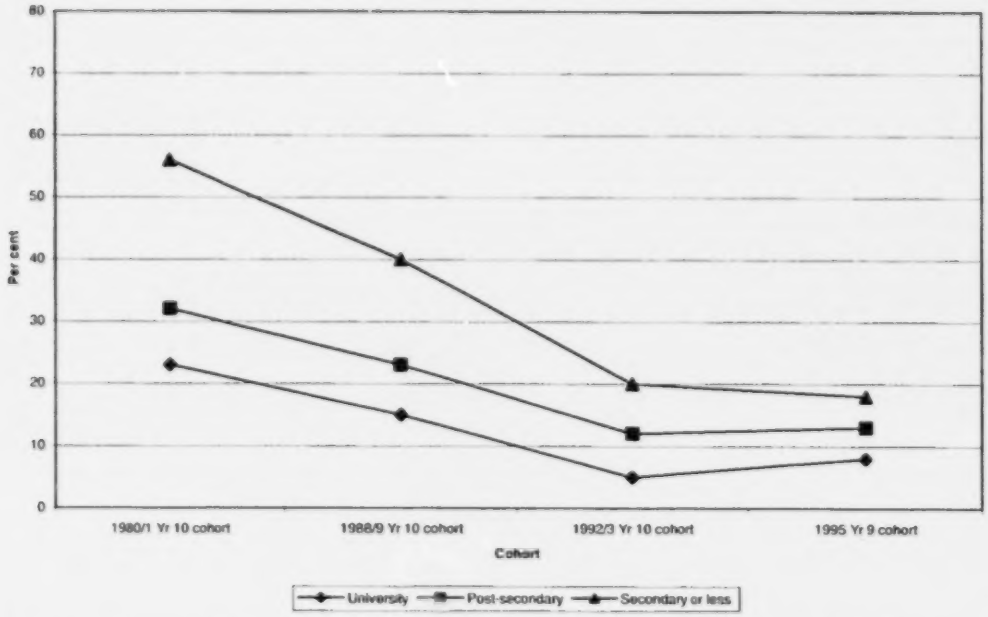

Figure 7 **Parental education and the non-completion of school in the 1980s and 1990s, females**

Recent patterns: Despite a weakening of the relationship between parents' educational levels and the amount of schooling undertaken by their children, during the mid to late 1990s young people from highly educated families remained less likely to leave school early and more likely to enter higher education, than young people from less educated family backgrounds. Of those who were in Year 9 in 1995 and whose parents had very high levels of education (greater than one standard deviation above the mean years of education), only 4 per cent subsequently became early school leavers, 7 per cent became later school leavers, and 30 per cent completed school but did not enter higher education, while nearly 60 per cent completed Year 12 and then entered higher education. In contrast, over twice the proportion of young people whose parents had very low levels of education (greater than one standard deviation below the mean) went on to become early or later school leavers (11 per cent and 16 per cent respectively), and 45 per cent completed school but did not enter higher education. Only 27 per cent of this group (from the least educated family backgrounds) completed school and entered higher education (Table 3). For the 1995 Year 9 cohort, at each of the educational branching points considered in this chapter, the odds of students from very highly educated family backgrounds progressing to the next educational stage were roughly three times the odds of those from low educational backgrounds progressing to the next educational stage (Appendix 4, Table 36 - Table 38).

A comparison of the bivariate and multivariate models of early and later school leaving for the 1995 Year 9 cohort suggests that over half of the effect of parental education (measured by years of education) can be explained by other influences included in the multivariate model, such as parental occupational status and achievement in literacy and numeracy (Appendix 4, Table 36 & Table 37). Nevertheless, parental educational level remained a small, significant influence on school non-completion, net of other factors.

While both boys' and girls' patterns of early and later school leaving are related to their parents' level of education (Table 4), the effect of parental educational level on early and later school leaving does not remain statistically significant for boys after controlling for the effects of parental occupation, other key sociodemographic variables, and achievement in literacy and numeracy (Table 5). This can be contrasted with the effects of parental occupation, reported above, which exerted a significant effect on later school leaving for boys, but not for girls.

Taken together, the multivariate results relating to the influence of parental occupation and parental education have important equity implications. They suggest that among students with similar achievement levels (measured by literacy and numeracy scores), students from lower socioeconomic backgrounds were significantly more likely than students from higher socioeconomic backgrounds to become non-completers in the mid to late 1990s.

Indigenous status

Trends: The educational participation rate of indigenous Australians is very much lower than that of non-indigenous young people. Long, Frigo and Batten (1999) used Census data and data from the National Schools Statistical Collection to analyse trends in the participation rates of indigenous Australians.[8] These data show little improvement for indigenous students relative to non-indigenous students in recent years. Focusing on the average age of leaving for 20 to 24 year-olds as reported in the 1991 and 1996 Census, Long, Frigo and Batten concluded that 'the difference between the school participation rates of indigenous and non-indigenous Australians declined between the mid 1980s and the early 1990s' (p. xi). However, their analysis of 15 to 19 year-olds suggested that this trend did not continue throughout the 1990s. Rather, 'in 1996, the school participation rate of indigenous Australians compared with non-indigenous Australians was slightly lower than in 1991' (p. ix). Furthermore, their analysis of data from the National

8 Lamb, Dwyer and Wyn's (2000) analysis of trends in school non-completion did not present results for indigenous youth.

Schools Statistical Collection showed that 'there was little sign of improvement in Year 12 retention rates for indigenous students, either absolutely or compared with the retention rates of non-indigenous students' between 1994 and 1997 (p. ix).

Recent patterns: Of all the sociodemographic groups considered in this report, indigenous Australian youth are the most disadvantaged in relation to school completion, and among the most disadvantaged in relation to progression to higher education. Within the 1995 Year 9 cohort, a high proportion of indigenous students left school by the end of Year 10 (20 per cent), a further 26 per cent left school by August of Year 12, and a further 31 per cent completed Year 12 but did not progress into higher education. In this sample, the odds of indigenous students becoming early or later school leavers were three times those of non-indigenous youth.[9] Furthermore, this relationship could only be partially explained by differences in the socioeconomic characteristics and literacy and numeracy levels of indigenous and non-indigenous groups (Appendix 4, Table 36 - Table 38).

While the proportion of indigenous males and females who did not complete school were similar (45 per cent and 47 per cent respectively), the timing of their school leaving differed. Indigenous males in the 1995 Year 9 cohort were less likely than indigenous females to be early school leavers (15 per cent of males compared with 24 per cent of females), but more likely to be later school leavers (30 per cent of males compared with 23 per cent of females). However, these gender differences should be treated with some caution, due to the small number of indigenous students included in the study sample. For example, contrary to our results, the findings of Long, Frigo and Batten (1999:39) suggest that among indigenous Australians, males are more likely than females to be both early and later school leavers.

Language background

Trends: Throughout the 1980s and 1990s, the school non-completion rates of young people whose parents were born in Australia were roughly similar to those whose parents were born in other English-speaking countries. In contrast, the non-completion rates of young people whose parents were born in non-English-speaking countries were considerably lower. That is, students from language backgrounds other than English are more likely to complete Year 12. There were no consistent over-time trends in these broad differences in school non-completion. For example, the *absolute* gap in non-completion between males with Australian-born parents and males with parents born in non-English-speaking countries was 18 percentage points in the early 1980s and 16 percentage points in the mid to late 1990s (Figure 8). For girls, the gap was 8 percentage points in the early 1980s, and 10 percentage points in the mid to late 1990s (Figure 9).

In contrast, an examination of the odds ratios suggests that the *relative* gap between students with Australian-born fathers and those from language backgrounds other than English may have increased throughout the period (Appendix 4, Table 34).

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9 The most thorough recent examination of the educational participation of indigenous young people is a report by Long, Carpenter and Hayden (1999). They estimated the Year 8 to Year 12 school retention rate for 1997 to be 31 per cent for indigenous students (or a non-completion rate of 69 per cent) (p.37). This suggests that the school non-completion rate of 46 per cent for indigenous youth presented in the current report is an underestimate. The original 1995 LSAY Year 9 sample did not include students who were enrolled in school but who were absent on the day of data collection. Absenteeism is higher among indigenous students (Rothman, 2002). The indigenous students who were present for the data collection are likely to be more connected to school, and thus more likely to stay on to participate in Year 12 and further education.

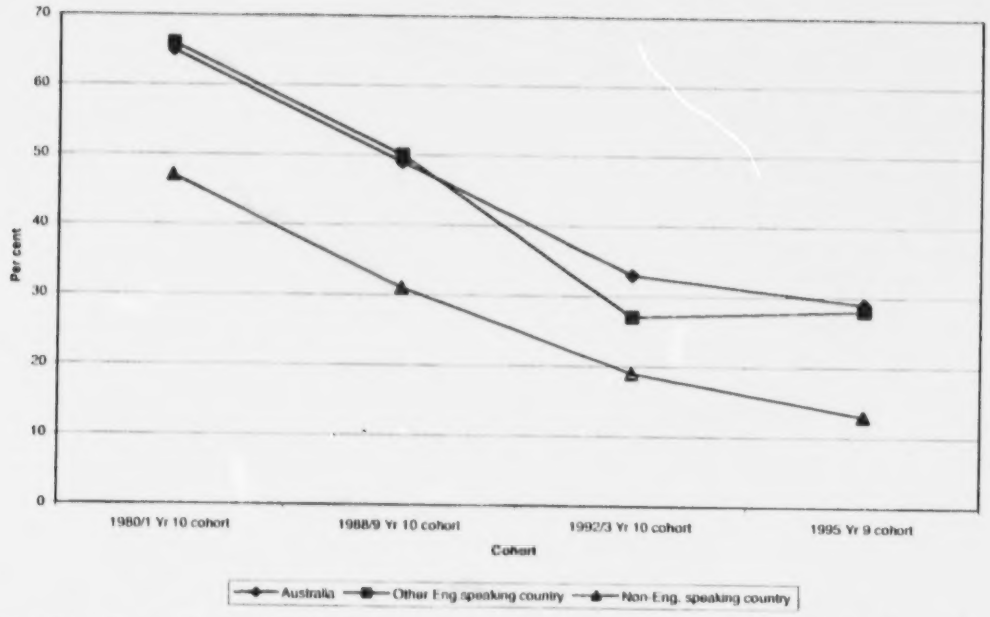

Figure 8 **Parents' country of birth and the non-completion of school in the 1980s and 1990s, males**

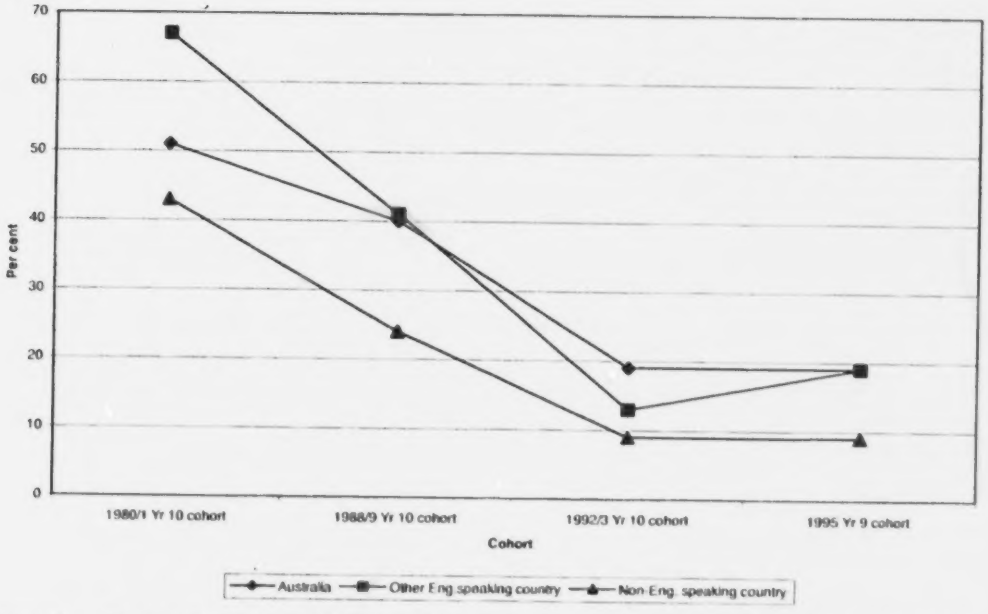

Figure 9 **Parents' country of birth and the non-completion of school in the 1980s and 1990s, females**

Recent patterns: In order to examine ethnic differences in recent patterns of school non-completion in more detail, and to remain comparable with the earlier analysis of early school leaving by Marks and Fleming (1999) we use a second measure of language background, based upon language spoken at home. By the mid to late 1990s, the odds of becoming an early school leaver for students from English-speaking backgrounds were 2.2 times those of students from language backgrounds other than English. Similarly, for those who commenced Year 11, the odds of students from English-speaking backgrounds leaving school before completing Year 12 were 2.5 times those of students from language backgrounds other than English. The influence of language background remained significant after controlling for sociodemographic characteristics and literacy and numeracy (Table 5; see also Appendix 4, Table 36 & Table 37). Furthermore, this relationship was evident among both boys and girls (Table 5).

Historically migrant families have tended to have high aspirations for their children's education, leading to higher than average educational attainments, as the results presented in this report confirm. Nevertheless, it could be the case that drawing a crude distinction between those from English-speaking backgrounds and those from language backgrounds other than English masks evidence of disadvantage among particular ethnic groups. Marks et al (2000) investigated this issue by examining the Year 12 participation rates of young people from more narrowly defined ethnic groups. They examined the participation rates of nine broad ethnic groups, and where sample size permitted, also examined the participation rates of students whose fathers were born in specific non-English-speaking countries (Greece, Italy, Former Yugoslavia, Lebanon, Malta and Vietnam). In each instance, the Year 12 participation rates of students from language backgrounds other than English were greater than those of students from English-speaking backgrounds.

Urban-rural differences

Trends: Students from non-metropolitan areas are less likely to complete senior secondary school than their urban counterparts. While non-completion rates have fallen for both groups during the past two decades, the *absolute* gap between young people from metropolitan and non-metropolitan areas has not narrowed. For example, 58 per cent of girls from non-metropolitan areas who were in Year 10 in 1980/81 did not go on to complete Year 12, compared with 49 per cent of girls from metropolitan areas, a gap of 9 percentage points. By the late 1980s, this gap had widened, but by the mid to late 1990s, it was again 9 percentage points (Figure 11). A broadly similar pattern is evident for males (Figure 10).

However, in *relative* terms, the situation for non-metropolitan students was poorer in the late 1990s than in the early 1980s, since a 9 percentage point difference is more significant at lower overall rates of non-completion. Thus, the odds of becoming a non-completer (relative to completing Year 12) for males from non-metropolitan areas were 1.5 times those for males in metropolitan areas in the early 1980s, but this had risen to 1.9 by the early 1990s. The corresponding odds ratios for girls in the early 1980s and the mid to late 1990s also suggest that the relative disadvantage of non-metropolitan female students increased in the 1980s and 1990s (Appendix 4, Table 34).

Recent patterns: In the mid to late 1990s, patterns of early and later school leaving differed. In relation to early school leaving, three broad groups can be distinguished: students who attended Year 9 in rural and remote areas experienced the highest early school leaving rates (14 per cent), followed by students from regional areas (10 per cent), with students from metropolitan areas having the lowest rates of early school leaving (6 per cent). The odds of rural/remote Year 9 students becoming early school leavers were 2.6 times those of their metropolitan counterparts, while the odds of regional students becoming early school leavers were only 1.7 times those of metropolitan students (Appendix 4, Table 36).

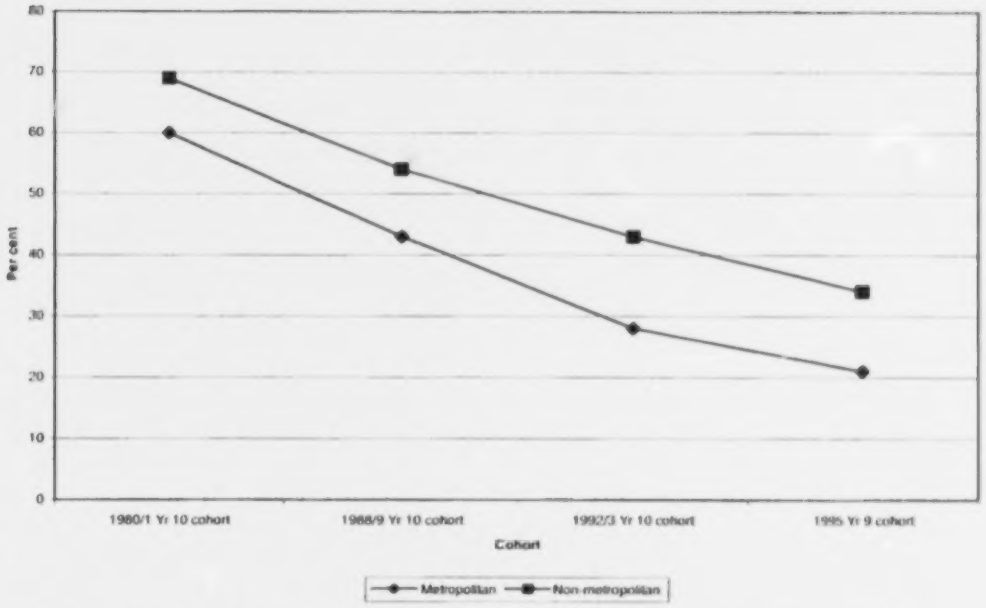

Figure 10 Region and the non-completion of school in the 1980s and 1990s, males

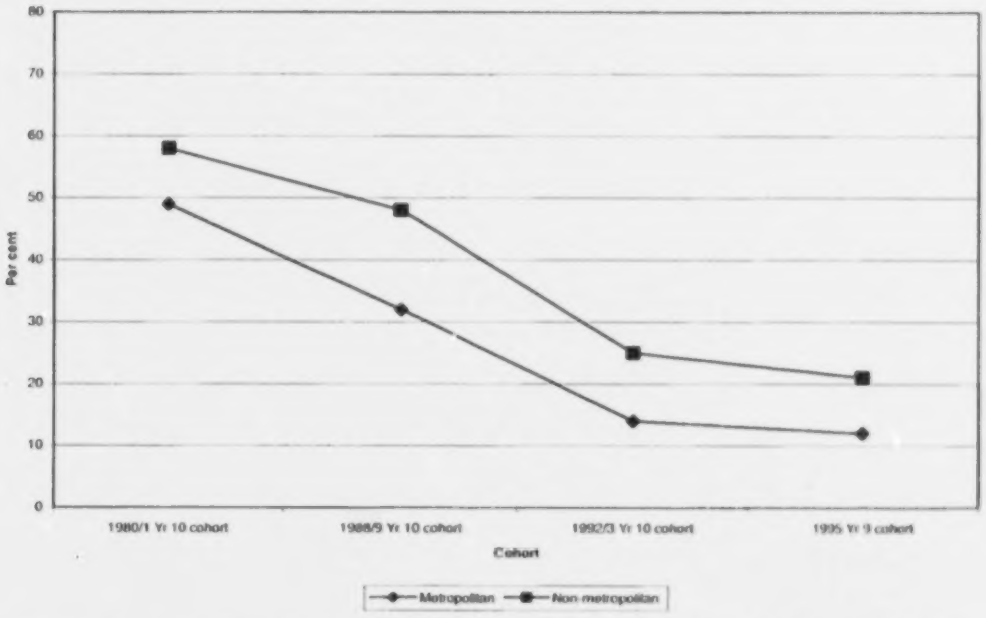

Figure 11 Region and the non-completion of school in the 1980s and 1990s, females

In relation to later school leaving, however, the major cleavage is between metropolitan and non-metropolitan (regional, rural and remote) students. Of the students who commenced Year 11, young people from regional, rural and remote areas showed similar rates of later school leaving (17 per cent), compared with the lower rates of later school leaving among metropolitan students (11 per cent). The odds of regional, rural and remote students who commenced Year 11, leaving before the completion of Year 12 were 1.7 times those of their metropolitan counterparts (Appendix 4, Table 37).

Metropolitan, regional and rural/remote differences are less marked in relation to the next educational branching point: not progressing to higher education. Of the students who completed Year 12, 48 per cent of students from metropolitan areas did not enter higher education in the first year or so after leaving school, compared with 54 per cent of students from regional areas, and 57 per cent of students from rural and remote areas. Compared with metropolitan Year 12 students, regional students were 1.4 times less likely to progress to higher education, and rural/remote students were 1.6 times less likely to progress to higher education in the immediate post-school years (Appendix 4, Table 38).

Returning to a consideration of early and later school leaving, multivariate analyses confirm the broad patterns of early and later school leaving described above, suggesting that other things being equal, metropolitan students are less likely than non-metropolitan students to become early or later school leavers. Rural and remote students are especially disadvantaged with respect to early school leaving, but for those who stay on to commence Year 11, the influence on subsequent non-completion of living in rural or remote areas is not substantially different from the influence of living in a regional area. The differences between metropolitan and non-metropolitan students cannot be attributed to differences between the groups on the other sociodemographic and educational factors examined in this chapter, as evidenced by a comparison the bivariate and multivariate results (Appendix 4, Table 36 & Table 37).

The multivariate analysis also shows that living in a rural or remote area, or to a lesser extent in a regional area, influences the *early* school leaving rates of both boys and girls after controlling for other sociodemographic and educational factors. However, the multivariate analyses reveal gender differences in the influence of geographic locality on *later* school leaving. Living in a rural/remote area exerts a significant independent influence on the later school leaving patterns of males but not females. Living in a regional area exerts a significant independent influence on the later school leaving patterns of females but not males (Table 5).

School sector

Trends: School non-completion is substantially more common among those who attend government schools during their middle schooling, than among those who attend Catholic and independent schools. However, school sector differences in non-completion have declined in recent decades. In the early 1980s, 67 per cent of male Year 10 students attending government schools did not stay on to complete Year 12, compared with only 21 per cent of males in independent schools, a gap of 46 percentage points. Throughout the 1980s and 1990s this gap narrowed, so that by the mid to late 1990s, it was only 19 percentage points (Figure 12). A similar pattern is evident for girls, with the gap in non-completion rates falling from 40 percentage points in the early 1980s to 11 percentage points in the mid to late 1990s (Figure 13).

The school non-completion rates for young people from Catholic schools were between those of government and independent schools in the early 1980s, and for most of the period under consideration. However, by the mid to late 1990s the non-completion rates of Catholic and independent school students had converged (Figure 12 and Figure 13).

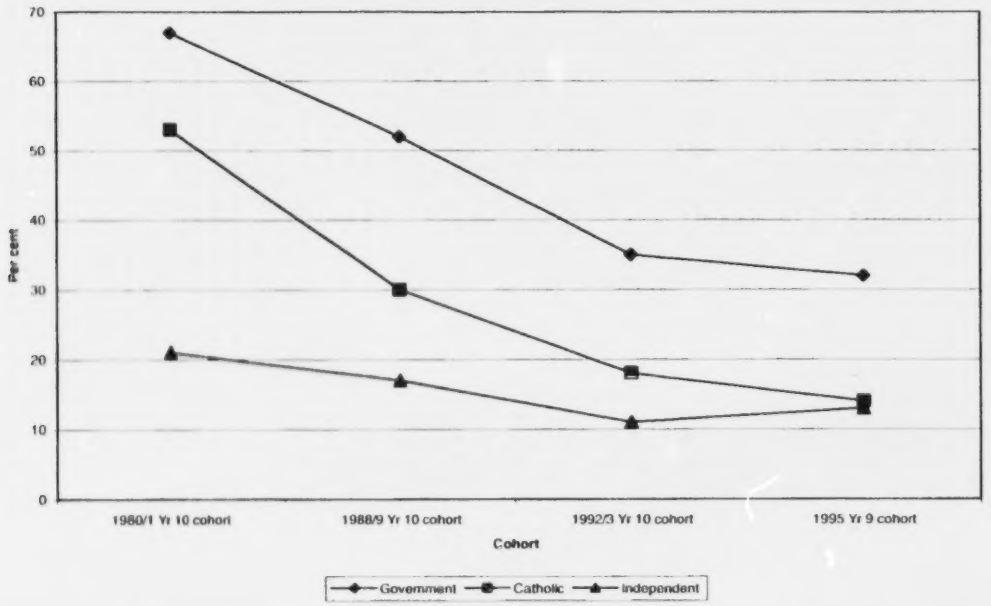

Figure 12 School sector and the non-completion of school in the 1980s and 1990s, males

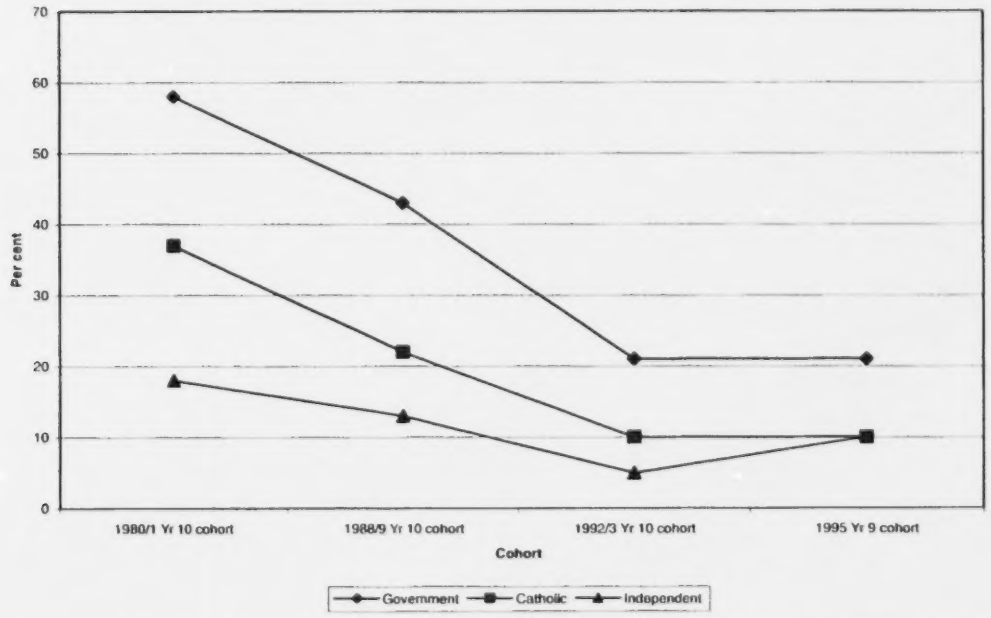

Figure 13 School sector and the non-completion of school in the 1980s and 1990s, females

Recent patterns: Of the students who were in Year 9 in independent schools in 1995, just over 10 per cent did not complete senior secondary school, and 30 per cent completed Year 12 but did not progress into higher education in the immediate post-school years, while the majority (59 per cent) completed Year 12 and entered higher education. As indicated above, students who attended Catholic schools in Year 9 displayed similar non-completion rates in the mid to late 1990s. However, they were less likely than independent school students to enter higher education. Government school students were more likely than students from other sectors to become non-completers (10 per cent left on or before the completion of Year 10, and 16 per cent left after the commencement of Year 11 but before completing Year 12). Government school students were also more likely than students from other sectors to complete Year 12 but not enter higher education (43 per cent), and were less likely to complete Year 12 and immediately enter higher education (31 per cent) (Table 3).

The unadjusted odds of government school students not progressing to Year 11 were 2.7 times the odds of independent school students not progressing to Year 11. For those who commenced Year 11, the odds of government school students not staying on to complete Year 12 were again 2.7 times those of independent school students (Appendix 4, Table 36 & Table 37).

Differences in early school leaving are also evident between students from Catholic and independent schools. The unadjusted odds of Catholic school students becoming early school leavers were 1.6 times those of independent school students. However, for those who commenced Year 11, the likelihood of not completing Year 12 was similar for both Catholic and independent students, suggesting that Catholic schools increase their holding power relative to the independent sector between the early and later years of schooling (Appendix 4 Table 36 & Table 37).

The school sector differences in non-completion described above can be partially explained by the socioeconomic and academic mix of students in the different sectors. After controlling for the influence of family socioeconomic status, other key sociodemographic factors, and achievement in literacy and numeracy, the effect of attending a government school rather than an independent school was substantially smaller than in the bivariate case. (For example, the odds ratio for early leaving declined from 2.7 to 1.6). Furthermore, the higher early school leaving rates of Catholic school students relative to independent school students did not remain statistically significant after controlling for the sociodemographic and academic mix of students in each sector (see Appendix 4, Table 36 & Table 37).

There are gender differences in the influence of school sector on early school leaving. After controlling for the influence of socioeconomic status, other sociodemographic factors, and literacy and numeracy achievement, school sector did not exert a significant independent effect on early school leaving for girls. For boys, however, after controlling for these factors, students who attended government schools were still 2.1 times more likely to become early school leavers (relative to staying on to Year 11) than those who attended independent schools; the net effects on early school leaving for attending Catholic and independent schools did not differ significantly. School sector had a significant independent effect on later school leaving for both boys and girls (Table 5).

Achievement in literacy and numeracy

Trends: As the data analysed by Lamb, Dwyer and Wyn (2000) did not include measures of literacy and numeracy achievement during middle schooling, they were unable to report trends in school non-completion by achievement levels. Therefore, in this section, we build upon analyses of a different data source, the *Youth in Transition* survey, reported by Marks et al (2000:10). In particular, we report their results for three cohorts: those born in 1965, 1970 and 1975. The majority of members of these birth cohorts would have been in Year 9 in 1979, 1984 and 1989, respectively. We add to this time series new data based upon the 1995 Year 9 cohort.

In each of the four cohorts, an 'achievement gradient' is evident, with the lowest achieving quartile of students experiencing the highest non-completion rates, followed by the next and subsequent quartiles, and the quartile with the highest performance on literacy and numeracy tests being the least likely to leave before the completion of senior secondary school (Figure 14 and Appendix 4, Table 35).

In the oldest cohort (which was in junior secondary school in the late 1970s/early 1980s), 84 per cent of students in the lowest literacy and numeracy achievement quartile became non-completers, compared with only 39 per cent of those in the highest achievement quartile, a gap of 45 percentage points. In the next cohort (those born in 1970), this gap increased to 61 percentage points, due to the relatively rapid decrease in school non-completion rates among the very high achievers (from 39 per cent to 17 per cent) and the considerably smaller drop in the school non-completion rates of very low achievers (from 84 per cent to 78 per cent). However, data on the two youngest cohorts show that throughout the 1990s, the gap in school non-completion rates between very high and very low achievers narrowed, due to a levelling out in the non-completion rates of very high achievers and a continued decline in the non-completion rates of very low achievers. This suggests that secondary schooling in Australia became more broad-based in the 1990s, even in the period after school retention rates had peaked.

Recent patterns: While the data suggest that the gap in school non-completion rates between very high and very low achievers has declined in recent years, by the mid to late 1990s its influence, nevertheless, remained strong. Just under 20 per cent of students whose performance on Year 9 literacy and numeracy tests was very low (more than 1 standard deviation below the mean) left school before Year 11, compared with only 2 per cent of students whose performance was very high (more than 1 standard deviation above the mean). Of the students who commenced Year 11, 24 per cent of students in the lowest literacy and numeracy achievement group left before the completion of Year 12, compared with only 6 per cent of the highest literacy and numeracy achievement group.

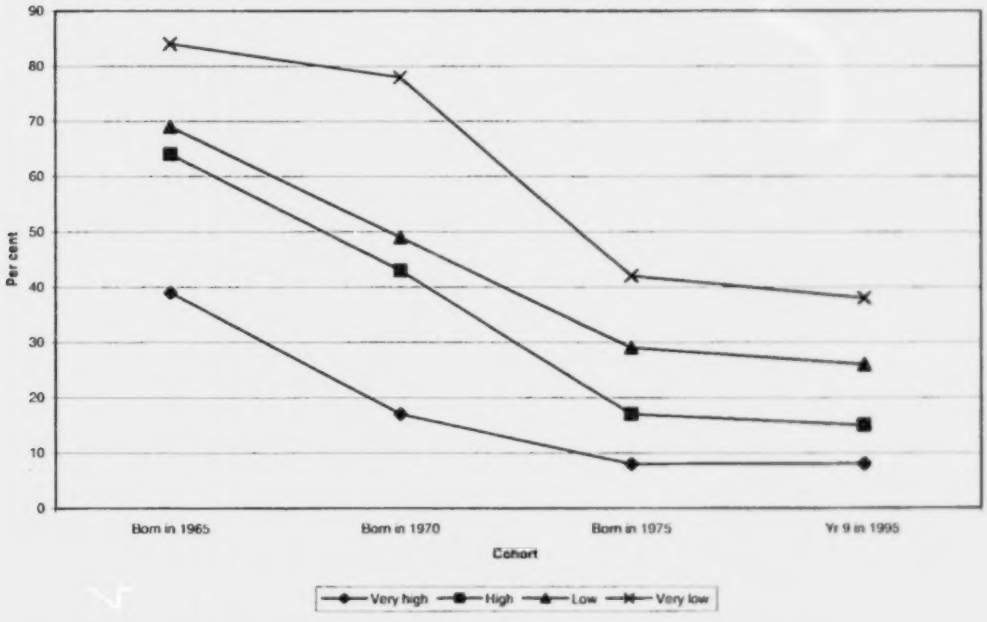

Figure 14 Literacy/numeracy and the non-completion of school in the 1980s and 1990s

The influence of literacy and numeracy achievement on early school leaving is larger than its effect on later school leaving. After controlling for sociodemographic and schooling characteristics, a one standard deviation decrease in achievement is associated with an increase of 2.2 in the odds of early school leaving (relative to progressing to Year 11). Excluding early school leavers from the analysis, the comparable odds ratio for later school leaving is 1.7. This suggests that low achievers are not only more likely to become non-completers; they are among the first to leave school (Appendix 4, Table 36 & Table 37). Literacy and numeracy achievement also influences the odds of school completers continuing onto higher education (Table 3; see also Appendix 4, Table 38).

The effect of literacy and numeracy achievement on early and later school leaving is more pronounced for males than females. Of the males with very low levels of literacy and numeracy, approximately 21 per cent left before Year 11, and a further 23 per cent left after the commencement of Year 11. The corresponding figures for girls were 15 per cent for early school leaving and 17 per cent for later school leaving (Table 4; see also Table 5).

The influence of literacy and numeracy on early and later school leavers remains largely unchanged, after controlling for the influence of sociodemographic factors (see Appendix 4, Table 36 & Table 37). Of the influences considered in this chapter, literacy and numeracy has the strongest net effect on school non-completion.

Summary

Trends: Two decades ago non-completion of school was the norm, but today the majority of young people complete Year 12. School retention rates grew rapidly in the 1980s and early 1990s, peaking in 1992 before declining slightly and then stabilising. In this changing context, it is important to assess whether the profile of school non-completers has changed, and in particular, whether access to senior secondary school has become more equitable.

On a positive note, the results presented in this chapter suggest that the influence of factors such as socioeconomic status (measured by parental occupation and parental education) and school sector have declined over the past 20 years. While the relative disadvantage experienced by boys in relation to school completion increased throughout most of the period, this trend was not maintained into the mid to late 1990s; that is, the gender gap did not further increase.

However, these results should not be taken as grounds for complacency. By the late 1990s, gender, socioeconomic status, language background, region and school sector continued to exert significant independent effects on school non-completion. Indigenous Australians remained the most disadvantaged group, and this disadvantage was only partially explained by the socioeconomic and academic characteristics of the group. The decline in the influence of socioeconomic status had slowed by the mid to late 1990s, while the representation among non-completers of young people with Australian-born parents and non-metropolitan students increased throughout the period.

Literacy and numeracy achievement continued to be a strong influence on school non-completion throughout the period. Low achievers are not only more likely to leave school early, but they are among the first to do so, confirming that improving literacy and numeracy is an important area for policy intervention.

Differences in the influences on early and later school leaving: In broad terms, the same factors that influence early school leaving also influence later school leaving. However, there are differences in the strength of some of these influences. In particular, having low levels of achievement in literacy and numeracy, and living in a rural or remote area have stronger influences on early school leaving, than on later school leaving.

Gender differences in the influences on school non-completion: Broadly similar types of factors influenced the patterns of school non-completion of boys and girls, although there were differences in the importance of some of these factors. In relation to socioeconomic background, parental education exerted a stronger influence on the school non-completion patterns of girls than boys, while parental occupation was more influential on the later school leaving patterns of boys than girls. Gender differences were also evident in relation to the influence of school sector, with the influence of attending a Catholic (rather than an Independent) school being stronger for females than males, but the influence of attending a government (rather than an Independent) school being stronger for males. Living in a regional (compared with a metropolitan) area was more influential on the early and later school leaving patterns of girls than it was for boys, but living in a rural or remote area had a stronger effect for boys than girls. Finally, the influence of literacy and numeracy on school non-completion was more important among boys than among girls.

4. REASONS GIVEN FOR SCHOOL NON-COMPLETION

Introduction

Chapter 3 examined the influence of a range of sociodemographic and school-related factors on the non-completion of school. Another way of examining influences on school non-completion is to ask early and later school leavers why they left school. These subjective explanations have the potential to provide a greater understanding of the influences on school non-completion.

A number of previous studies have examined the reasons young people give for not completing school. These studies fall into two major types: in-depth qualitative studies of relatively small groups of non-completers; and quantitative studies of nationally representative groups of young people. The two types of studies have yielded quite discrepant findings.

The Youth Research Centre conducted an in-depth qualitative study of 132 early school leavers in the early 1990s. They reported that the most common reason for school leaving was dissatisfaction with school either in terms of getting on with teachers, or finding activities interesting or motivational (Holden & Dwyer, 1992). Summarising this work, Dwyer (1996:13) concluded that:

> Early leaving is often more related to the push from a negative experience of school than the pull of a job or a clear idea of future pathways to adulthood ... Most of the young people's reasons had to do with wanting to get away from school, especially because the teacher/student relationship was a profoundly negative experience or they found the school environment and work uninteresting and uninspiring.

Similarly, other qualitative studies have suggested that school-related factors are foremost in the minds of non-completers (eg Brown et al, 2001; MacDonald, 1999; Smyth et al, 2000).

These broad conclusions can be contrasted with the results from analyses of quantitative data collected from national samples of young people. Lamb, Dwyer and Wyn's (2000:30) study of school non-completion from the early 1980s to the mid 1990s found that work-related factors such as 'to do an apprenticeship' or 'to get a job' were the main reasons non-completers gave for leaving school before the completion of Year 12. Similarly, Marks and Fleming's (1999) study of early school leaving (by the end of Year 10) in the mid to late 1990s emphasised the importance of work-related factors, especially among boys. The results of a survey conducted in 1997 by the Australian Bureau of Statistics also suggested that non-completers place more weight on work-related reasons than on school-related, personal or family reasons when deciding to leave school (ABS, 2001:100).

The discrepant conclusions regarding the relative weight given to school- and work-related factors by students who decide to discontinue their schooling may partially reflect the different study methodologies. The qualitative studies have the advantage of being able to elicit detailed information on the process of school leaving, but are based upon limited and possibly non-representative samples. The quantitative studies, on the other hand, are based upon nationally representative cohorts of young people, but include only a limited number of questions on reasons for school non-completion. It is unlikely that most non-completers leave school for only one reason. It may be the case that the quantitative studies are able to identify the main reasons for non-completion, but the qualitative studies are better suited to identifying the many additional reasons, some of which will have been less important than others in students' decision-making processes. This issue will be addressed in the discussion of the results of the current study.

Non-completers reasons for leaving school in the mid to late 1990s

In the 1997 annual telephone interview, early school leavers were read a list of eight possible reasons for school non-completion and asked to indicate whether each reason was an important or unimportant consideration in why they left school. Respondents were then asked what was the main reason why they left school. They were allowed to specify a reason other than those listed. In 1998, a similar procedure was used to elicit information from persons who had left school since their 1997 interview. Equivalent information is not available for the small number of respondents who dropped out of school between the 1998 and 2000 interviews.

The list of reasons for school non-completion included both work-related and school-related reasons. The work-related reasons were:

- I wanted to get a job/apprenticeship;
- to earn my own money; and
- I wanted to do job training that wasn't available at school.

The school-related factors were:

- I didn't like school;
- I was not doing well at school;
- the school didn't offer the subjects/courses I wanted to do;
- teachers thought I should; and
- financially, it was hard to stay at school.

About 62 per cent of early school leavers and 55 per cent of later school leavers indicated that one of the three listed work-related reasons was the main reason they left school (Table 6). This is consistent with the earlier findings from other quantitative studies (ABS, 2001; Brown et al, 2000; Lamb et al 2000; Marks & Fleming, 1999), but inconsistent with the findings from qualitative studies (Holden & Dwyer, 1992; MacDonald, 1999; Smyth et al, 2000). As indicated in the introduction to this chapter, part of the reason for these discrepant findings is the manner in which reasons for leaving school were elicited from non-completers in the different studies. The current study asked respondents to draw a distinction between 'main' and 'important' reasons for school non-completion. While many nominated any particular reason as 'important', far fewer nominated the same reason as the 'main' factor leading to their leaving school. For example, between 40 and 43 per cent indicated that not doing well at school was an *important* factor in their decision to leave, but a significantly smaller group (between 7 and 11 per cent) indicated that this was the *main* reason why they left school. The qualitative findings cited earlier in the Chapter are closer to our results relating to 'important' reasons for school non-completion, than they are to our results on the 'main' reason for non-completion. While the current study is able to provide an indication of the major motivations for school non-completion, based upon a nationally representative sample of school leavers, the qualitative work of others identifies the many additional motivations, including a variety of school-related reasons, of a more select group of non-completers. The current study findings (and those of other quantitative researchers), by including a consideration of the importance of the various reasons for leaving and the identification of what non-completers perceive as the main reasons, lead to the conclusion that the pull of work-related factors are a central consideration in the decision to leave school for more than half of non-completers.

Table 6 Reasons given for school non-completion, early school leavers and later school leavers (per cent)

	Persons		Males		Females	
	Early Leaver[1]	Later Leaver	Early Leaver	Later Leaver	Early Leaver	Later Leaver
PANEL 1: Important Reason (%)						
Work-related reasons						
I wanted to get a job/ apprenticeship	82	76	88	85	73	64
To earn my own money	78	75	83	80	71	67
I wanted to do job training that wasn't available at school	48	41	48	45	48	36
School-related reasons						
I didn't like school	50	50	49	47	52	54
I was not doing very well at school	40	43	40	43	39	44
The school didn't offer the subjects/courses I wanted to do	40	36	36	37	47	34
Teachers thought I should	17	15	22	16	10	12
Financially, it was hard to stay at school	17	20	15	20	20	19
PANEL 2: Main Reason (column %)						
Work-related reasons						
I wanted to get a job/ apprenticeship	52	44	63	55	36	28
To earn my own money	5	6	6	7	3	5
I wanted to do job training that wasn't available at school	5	5	3	4	10	7
School-related reasons						
I didn't like school	12	13	11	9	15	20
I was not doing very well at school	7	11	5	10	8	13
The school didn't offer the subjects/courses I wanted to do	5	6	3	6	9	6
Teachers thought I should	1	2	1	3	1	0
Financially, it was hard to stay at school	1	1	0	1	3	2
Other reasons	11	11	8	7	15	18
(Total N)	(789)	(832)	(477)	(502)	(312)	(331)

1 The weights used to correct for sample design and attrition have been updated since the release of Marks and Fleming's (1999) report on early school leaving. Consequently, the percentages for the early school leaver group may differ slightly from those published in the earlier report.

The reason most frequently nominated by both early and later school leavers in this cohort as an important (or the main) consideration in the decision to leave school, was to gain a job or apprenticeship. Over 80 per cent of early leavers and 76 per cent of later leavers indicated that this was an important consideration in their decision to leave school. Just over a half of the early leavers and 44 per cent of the later leavers indicated that this was their main reason for leaving school.

The next most popular reason for school non-completion was also work-related. About 78 per cent of early school leavers and 75 per cent of later school leavers indicated that 'to earn my own

money' was an important consideration, although only 5-6 per cent indicated that it was their main reason for leaving school.

School-related factors were less prominent among the reasons given for non-completion. About half of the early and later school leavers indicated that not liking school was an important factor in their decision to leave. Between 40 and 43 per cent stated that 'not doing well at school' was an important consideration, and slightly fewer indicated that subject/course choice offered by the school was important. However, turning to main reason for school non-completion, only 24 per cent of early school leavers and 30 per cent of the later school leavers nominated one of these three school-related reasons.

According to both groups of non-completers, 'teachers' and 'financial difficulties' played only a minor role in school leaving.

Both males and females nominated work-related factors more frequently than school-related factors as reasons for school non-completion. However, there are substantial gender differences in the reasons given for leaving school. Males place more importance on the work-related reasons of wanting to get a job/apprenticeship and wanting to earn money. Females are more likely than males to nominate many of the school-related factors (e.g. not liking school) as the main reason for leaving school, or to specify an 'other' factor as the main reason for school leaving. The greater relative weight placed upon seeking work by males as a reason for leaving school has also been noted in other research (Kirby, 2000:54). This may reflect a recognition by young people of the different labour market opportunities available to male and female non-completers, and in particular, a recognition of the continuing male dominance of the apprenticeship pathway.

There are also differences between the early and later school leavers in the reasons given for leaving school. A smaller proportion of later school leavers cited wanting to get a job or an apprenticeship as an important or main reason for school non-completion. That is, the students who are most committed to the alternative of entering the full-time labour market are more likely to be among the first to leave.

Summary

Dissatisfaction with school culture and curriculum issues have been highlighted as the major reasons for school non-completion in a number of qualitative studies. A smaller but not insignificant group in this study (just under a third of the non-completers, or 6 per cent of the total sample) indicated that a school-related factor such as not doing well at school, not liking school, or the types of courses offered by the school, was their main reason for leaving school, suggesting possible areas for policy intervention.

However, the current results (and those of previous quantitative studies) demonstrate that while still at school, the majority of non-completers perceive work or an apprenticeship as a viable alternative to school, and this is why they leave. In the remainder of this report, we ask whether non-completers are disadvantaged in the labour market, by comparing the activities of those who left school before the completion of Year 12, with the activities of those who completed Year 12.

5. POST-SCHOOL ACTIVITIES: AN OVERVIEW

Introduction

In this chapter, attention turns to the post-school education, training and labour market activities of young people. As Chapter 4 indicated, most school non-completers leave school expecting or wanting to find a job or apprenticeship. However, past research suggests that young people who do not complete school have poorer labour market outcomes than those who complete secondary school. Non-completers are more likely to be found in various forms of marginal labour market activities (such as part-time or casual work, which is not coupled with study), to experience longer and more frequent periods of unemployment, and to be concentrated in low skill occupations with limited opportunities for training and limited career prospects (Lamb & Rumberger, 1999; McClelland et al, 1998; Misko, 1999).

By 2000, persons in the study cohort (that is, persons who had been enrolled in Year 9 in 1995) who did not go on to complete Year 12 had been out of school for up to five years, and the majority of persons who completed Year 12 had been out of school for two years. This chapter provides a broad overview of the post-school education, training and labour market activities of these young people in each year from 1997 to 2000. This sets the context for the following chapters, where we examine the cohort's post-school labour market activities in more detail. We detail the pathways from school to the labour market and/or post-school education and training (Chapter 6), experiences of unemployment (Chapter 7), occupations and earnings (Chapter 8), and job stability and work satisfaction (Chapter 9).

Education and training

Returning to school: Few of the non-completers in this cohort returned to school in subsequent years. Approximately 6 per cent had returned to school before the 2000 interview, but left again before completing Year 12. A further 6 per cent returned and completed Year 12 by the time of the 2000 interview, and 2 per cent enrolled in secondary subjects at TAFE between 1998 and 2000.[10] The low Year 12 completion rate for persons who at some time drop out of school is consistent with other Australian research based upon earlier cohorts of young people (Lamb & Rumberger, 1999), but differs markedly from the situation in the United States (Rumberger, 2000; Wayman, 2001). However, other education and training pathways, such as apprenticeships, traineeships and TAFE courses, are available to Australian non-completers. These pathways also have the potential to provide young people with skills and qualifications to assist in the transition to work and enhance their labour market outcomes.

Post-school education and training: Table 7 reports the education and training activities of *early leavers* (who left school on or before the completion of Year 10), *later leavers* (who left school after the commencement of Year 11 but before the end of Year 12) and *completers*, at each annual interview between 1997 and 2000. Four types of post-school education and training are distinguished:

- apprenticeships/trade certificates;
- traineeships;
- other TAFE/non-degree study; and
- bachelor's or higher degrees.

10 Data on enrolment in secondary subjects at TAFE prior to 1998 are not available.

Table 7 Participation in education and training at time of interview, by school completion status, 1997-2000 (column per cent)

	1997			1998			1999			2000		
	Early leaver	Later leaver	Com-pleter	Early leaver	Later leaver	Com-pleter	Early leaver	Later leaver	Com-pleter	Early leaver	Later leaver	Com-pleter
PANEL 1: Persons												
Still at school	2	64	100	.	7	100	.	.	4	.	.	.
Rtn to school/school subj at TAFE[a]	.	.	.	4	5	.	4	5	.	.	2	.
Apprenticeship/trade certificate	30	7	.	29	21	.	23	20	5	21	22	6
Traineeship	9	2	.	5	8	.	4	7	5	3	6	4
Other TAFE/non-degree study	14	5	.	7	10	.	8	9	22	6	6	15
Bachelor's or higher degree	.	.	.	.	.	.	.	.	38	1	1	41
Not studying	45	23	.	55	48	.	60	59	27	68	63	33
(Total N)[b]	(677)	(1012)	(6198)	(668)	(1005)	(6198)	(668)	(1006)	(6187)	(673)	(1002)	(6178)
PANEL 2: Males												
Still at school	2	64	100	.	6	100	.	.	4	.	.	.
Rtn to school/school subj at TAFE[a]	.	.		2	4	.	5	3	.	.	.	.
Apprenticeship/trade certificate	41	9	.	39	32	.	33	31	9	29	33	12
Traineeship	9	2	.	7	8	.	4	5	4	2	5	4
Other TAFE/non-degree study	8	3	.	4	7	.	5	6	21	6	3	14
Bachelor's or higher degree	.	.	.	.	.	.	.	.	34	.	1	37
Not studying	39	21	.	48	44	.	53	54	27	62	57	32
(Total N)[b]	(416)	(591)	(2848)	(414)	(589)	(2848)	(408)	(589)	(2839)	(414)	(586)	(2836)
PANEL 3: Females												
Still at school	2	63	100	.	10	100	.	.	3	.	.	.
Rtn to school/school subj at TAFE[a]	.	.	.	7	7	.	2	7	.	.	4	.
Apprenticeship/trade certificate	11	4	.	12	6	.	7	5	1	7	7	1
Traineeship	9	1	.	3	9	.	4	10	5	5	8	4
Other TAFE/non-degree study	23	7	.	12	14	.	14	12	22	7	9	16
Bachelor's or higher degree	.	.	.	.	.	.	1	1	42	2	2	44
Not studying	55	25	.	67	53	.	72	65	26	79	71	34
(Total N)[b]	(262)	(421)	(3350)	(254)	(416)	(3350)	(260)	(417)	(3347)	(259)	(416)	(3342)

a. 'Returned to school or studying school subjects at TAFE' only measured at the time of the 1998-2000 interviews.

b. Analysis based upon persons remaining in sample in 2000. Total N's may differ slightly across years due to missing data on education questions in particular years.

In 1998, New Apprenticeships were introduced in Australia to form a single, integrated system of employment incorporating the formerly separate apprenticeships and traineeships. However, the majority of the 1995 Year 9 cohort members continued to distinguish between apprenticeships and traineeships in their responses to interview questions, and it is possible that the labour market returns for these two types of training differ. Therefore, we present findings for apprentices and trainees separately.

Compared with returning to school to complete Year 12, participation in various post-school education and training options is relatively common among non-completers, confirming the need to distinguish between 'disengagement from school' and 'disengagement from education' (Brown et al, 2001:7). Over half of the early school leavers were engaged in some form of education and training at the time of the 1997 interview. The most common form of education and training for this group was apprenticeships/trade certificates (30 per cent), followed by other TAFE/non-degree study (14 per cent), and traineeships (9 per cent). The proportion of early school leavers engaged in education and training activities declined each year, to approximately one third in 2000, partially reflecting the completion of initial post-school courses (Table 7, Panel 1).

For the majority of later school leavers, 1998 was the first post-school year. Just over half were engaged in education and training activities in 1998, with 21 per cent in apprenticeships, 10 per cent in other TAFE/non-degree study, and 8 per cent in traineeships. With each passing year, the proportion of later leavers engaged in study also decreased, from 52 per cent in 1998 to 37 per cent in 2000. In any given year, later leavers were more likely than early leavers to be studying. For example in 2000, 32 per cent of early leavers, compared with 37 per cent of later leavers were engaged in formal education and training activities (Table 7, Panel 1).

For the majority of completers, 1999 was the first post-school year. In both 1999 and 2000, completers were far more likely than non-completers to engage in education and training activities. For example, at the time of interview in 2000, 68 per cent of early school leavers and 63 per cent of later leavers were not studying, compared with only 33 per cent of school completers (Table 7, Panel 1).

The type of formal post-school educational activities undertaken by non-completer and completer groups differs. Apprenticeships formed the most activity for the non-completer group. Between 20 to 30 per cent of early and later school leavers were in apprenticeships in each of the years under consideration. In contrast, only 5 to 6 per cent of completers undertook apprenticeships in their first two post-school years (Table 7, Panel 1).

Completers were concentrated in courses leading to bachelor's and higher degrees (38 per cent in 1999 and 41 per cent in 2000). In contrast, very few non-completers were enrolled in bachelor's degrees (1 per cent of early leavers and 1 per cent of later leavers in 2000). This is not surprising given the entry requirements for degree-level courses (Table 7, Panel 1).

Gender differences in participation in post-school education and training are reported in Table 7 (Panels 2-3). Among completers, males and females were equally likely to participate in post-school education and training. For example, in 2000 68 per cent of male completers and 66 per cent of female completers were engaged in some form of education and training. Among the non-completers, however, gender differences were evident, with males having higher post-secondary educational and training participation rates at each time point. Between 1997 and 2000, the gender gap in participation was between 16 and 19 percentage points for early school leavers. In the years between 1998 and 2000, the gender gap was slightly smaller for later school leavers (between 9 and 14 percentage points).

When all forms of education and training, both at school and post-secondary, are taken into account, these gender differences in participation levels disappear. At the time of the 1997

interview, 6 per cent of the females in the study cohort, and 7 per cent of the males in the study cohort were not undertaking any formal education or training activities. By the time of the 2000 interview, 40 per cent of all females and 39 per cent of all males were not in education and training. This further emphasises the presence of gender differences in educational pathways: females are more likely than males to stay on to complete Year 12 (Chapter 3), but of those who do not complete school, females are less likely than males to undertake post secondary education and training (Table 7).

There are also marked differences in the types of post-school educational and training activities in which males and females engage. In previous cohorts of young people, apprenticeships were male dominated (Lamb & Rumberger, 1999), and this continues to be the case among this group of young people. In 2000, 29 per cent of male early school leavers, 33 per cent of male later school leavers, and 12 per cent of male completers were undertaking apprenticeships/trade qualifications. The corresponding figures for females were substantially lower (7 per cent, 7 per cent and 1 per cent respectively). There are no consistent differences in the proportions of males and females in this cohort who were engaged in traineeships in the years 1997 to 2000 (Table 7, Panels 2-3).

Gender differences in other forms of education and training vary according to school completion status. Among early school leavers, females were more likely than males to participate in other TAFE/non-degree courses in the initial post-school years, although this gender difference diminished the longer the non-completers were out of school. (The gender gap fell from 15 percentage points in 1997 to 1 percentage point in 2000). For later school leavers, females were also more likely than males to undertake other TAFE/non-degree courses, and this gap remained consistent in the post-school years (around 6-7 percentage points for the years from 1998 to 2000). Among completers, there were no gender differences in participation in other TAFE/non-degree courses, but females were more likely to be enrolled in courses leading to bachelor's or higher degrees (Table 7, Panels 2-3).

Another way of assessing educational participation is to examine completed qualifications. Qualifications completed by 2000 are reported in Table 8, by school completion status and gender. Early leavers were more likely to have completed a qualification than later leavers, who in turn were more likely to have obtained a qualification than school completers. This is partially a reflection of the length of time since leaving school, and hence the amount of time available to complete a qualification. Furthermore, completers are more likely to undertake longer courses (such as bachelor's degrees). It will be necessary to allow more time to elapse before differences in the number and type of qualifications ultimately completed by early school leavers, later school leavers and school completers can be adequately assessed.

Table 8 Per cent who completed a qualification by the time of the 2000 interview, by gender and school completion status (per cent)

	Persons			Males			Females		
	Early leaver	Later leaver	Com-pleter	Early leaver	Later leaver	Com-pleter	Early leaver	Later leaver	Com-pleter
No qualification	50	66	81	51	71	82	49	60	80
Apprenticeship/ trade certificate	15	6	1	21	9	1	6	3	.
Traineeship	3	2	1	4	2	1	3	2	1
Other qualification	36	28	18	30	21	16	46	37	19
(N)	(677)	(1012)	(6198)	(416)	(591)	(2848)	(262)	(421)	(3350)

Note: Column percentages do not sum to 100 per cent as some persons completed more than one qualification.

Nevertheless, by 2000 it is possible to discern gender differences in the types of qualifications obtained by non-completers. Reflecting the gender differences in participation in educational and training activities at various time points discussed above, male non-completers were more likely than female non-completers to have obtained a trade certificate by 2000, there were no gender differences in the completion of traineeships, and female non-completers were more likely to have obtained an other qualification (Table 8).

In summary, among non-completers, males have a higher participation rate than females in post-school education and training, but this must be balanced against males' lower school completion rates. Among completers, there are no gender differences in level of participation in post-secondary education and training in the first two post-school years. There are, however, a number of gender differences in the types of education and training undertaken. Among non-completers, males are more likely to undertake apprenticeships, there are no consistent gender differences in participation in traineeships, and females are concentrated in other TAFE/non-degree courses. Among completers, males are again more likely to be in apprenticeships, there are no gender differences in participation in traineeships or other TAFE/non-degree courses, and females are more likely to be enrolled in courses leading to bachelor's or higher degrees.

A more detailed examination of this cohort's level of participation in post-school education and training, and the influences on participation, is provided in two other LSAY Research Reports, which address the following issues:

- school non-completers' participation in post-school education and training activities (Ball & Lamb, 2001); and
- participation in higher education in the first year out of school (Marks et al, 2000).

Snapshot of the post-school activities of non-completers

The previous section examined participation in education and training, but did not examine whether these activities were undertaken in conjunction with work. Nor did it distinguish between part-time and full-time study. In this section we address these issues, by monitoring the main educational, training and labour market activities of the cohort at the time of interview in each year from 1997 to 2000. Nine broad groups of activities are distinguished:

- studying full-time (still at school);
- studying full-time (either in post-school education or returned to school);
- working full-time and undertaking post-school education or training;
- working full-time but not studying;
- working part-time and studying part-time;
- working part-time and not studying;
- not working but studying part-time;
- not working but looking for work; and
- not in the labour force.

When classifying respondents, these activities are prioritised in the order they are presented above. For example if a respondent said they worked part-time but studied full-time they are classified as studying full-time. Percentages are presented by school completion status for the entire cohort (Table 9), and separately for males (Table 10) and females (Table 11).[11]

11 The results for the early school leaver group in 1997 differ from those presented by Marks and Fleming (1999:23-24). In the earlier report, the main activity *since leaving school* was analysed. In contrast, activities *at the time of interview* are analysed in this report.

Table 9 Education, training and labour market activities at the time of interview (1997-2000), by school completion status (column %)

	1997				1998				1999				2000			
	Early leaver	Later leaver	Completer		Early leaver	Later leaver	Completer		Early leaver	Later leaver	Completer		Early leaver	Later leaver	Completer	
			No higher ed	Higher ed			No higher ed	Higher ed			No higher ed	Higher ed			No higher ed	Higher ed
Studying full-time																
- still at school	2	64	100	100	.	7	100	100	.	.	5	3	.	.	.	.
- post-school education (or returned to school)	12	4	.	.	7	15	.	.	8	12	28	87	4	7	17	87
Working full-time																
- enrolled in post-school education or training[a]	38	8	.	.	35	28	.	.	29	27	20	2	27	28	22	3
- not studying	22	11	.	.	31	21	.	.	39	33	28	4	44	37	39	5
Working part-time																
- part-time post-school education or training	2	1	.	.	1	1	.	.	1	1	2	1	.	2	2	2
- not studying	7	3	.	.	7	9	.	.	7	8	9	2	7	7	10	1
Not working																
- part-time post-school education and training	2	.	.	.	1	1	.	.	1	1	1	.	1	1	1	1
- looking for work	10	7	.	.	13	14	.	.	9	12	6	1	10	11	6	1
- not in the labour force	5	2	.	.	4	3	.	.	5	6	2	.	7	8	3	.
(Total N)[b]	(677)	(1012)	(3239)	(2959)	(668)	(1005)	(3239)	(2959)	(668)	(1006)	(3231)	(2956)	(673)	(1002)	(3222)	(2955)

a. Includes apprenticeships, traineeships, and part-time study

b. Analysis restricted to persons still in sample in 2000.

Table 10 Males' education, training and labour market activities at the time of interview (1997-2000), by school completion status (column %)

	1997		1998		1999		2000	
	Non-completer	Completer	Non-completer	Completer	Non-completer	Completer	Non-completer	Completer
Studying full-time								
- still at school	39	100	3	100	.	4	.	.
- post-school education (or returned to school)	6		9		8	52	4	47
Working full-time								
- enrolled in post-school education or training[a]	25	.	41	.	37	14	36	19
- not studying	14	.	26	.	36	18	40	22
Working part-time								
- part-time post-school education or training	1	.	.	.	.	1	.	1
- not studying	3	.	5	.	4	4	4	5
Not working								
- part-time post-school education and training	1	.	1	.	1	1	1	1
- looking for work	9	.	13	.	12	4	12	4
- not in the labour force	2	.	2	.	2	1	3	1
(Total N)[b]	(1006)	(2848)	(1003)	(2848)	(997)	(2839)	(1000)	(2836)

a. Includes apprenticeships, traineeships, and part-time study

b. Analysis restricted to persons still in sample in 2000.

Table 11 Females' education, training and labour market activities at the time of interview (1997-2000), by school completion status (column %)

	1997		1998		1999		2000	
	Non-completer	Completer	Non-completer	Completer	Non-completer	Completer	Non-completer	Completer
Studying full-time	39	100	6	100	.	3	.	.
- still at school	9	.	16	.	13	60	7	54
- post-school education (or returned to school)								
Working full-time	13	.	17	.	16	9	15	9
- enrolled in post-school education or training[a]	17	.	24	.	35	15	40	23
- not studying								
Working part-time	2	.	2	.	1	2	2	2
- part-time post-school education or training	7	.	13	.	13	6	12	6
- not studying								
Not working	1	.	2	.	2	1	1	1
- part-time post-school education and training	8	.	15	.	10	3	8	3
- looking for work	5	.	6	.	10	1	14	2
- not in the labour force								
(Total N)[b]	(682)	(3350)	(670)	(3350)	(677)	(3347)	(675)	(3341)

a. Includes apprenticeships, traineeships, and part-time study

b. Analysis restricted to persons still in sample in 2000.

In the discussion below, emphasis is placed upon comparisons between the activities of early school leavers, later school leavers and school completers who did *not* enter higher education in the first two post-school years (that is, in 1999 or 2000). As the majority of school completers who entered higher education were still in full-time study in late 2000, it is too early to assess their early labour market outcomes, although the results for this subgroup are included in the tables for interested readers.

Full-time study: The results presented in Table 9 show that early school leavers were less likely than later school leavers to be engaged in full-time study in any given year. At the time of the 1998 interview, 7 per cent of the early school leavers were engaged in full-time post-school study, compared with 15 per cent of the later school leavers. However, this difference partially reflects the length of time since leaving school. The gap between early school leavers' participation in full-time study in 1997 and later school leavers' participation in 1998 was substantially less (3 percentage points). Similarly, by 2000 when the majority of both groups had been out of school for 2 or more years, the gap was only 3 percentage points. (About 4 per cent of early school leavers and 7 per cent of later school leavers were studying full-time in 2000.)

School completers' participation in post-secondary full-time study was substantially higher than that of non-completers. Of the completers who did not go on to higher education in their first two post-school years, 28 per cent were engaged in other full-time studies in 1999, falling to 17 per cent in 2000. The contrast with non-completers is even more marked when considering completers who entered higher education: 87 per cent were studying full-time in 1999, and a similar percentage was studying full-time in 2000.

Full-time employment: In any given year, early school leavers were the most likely to be in full-time employment, followed by later school leavers, then completers. For example, at the time of the 2000 interview, 71 (= 27 + 44) per cent of the early school leavers, 65 per cent of the later school leavers and 61 per cent of school completers who had not entered higher education, were in full-time employment. These differences are partially a reflection of the length of time in the labour market. For example, the proportion of later school leavers in full-time employment in 2000 was equivalent to the proportion of early school leavers in full-time employment in 2 years earlier (65 per cent and 66 per cent respectively).

Across all groups, participation in full-time employment increased as the length of time since leaving school increased. For example, among the early school leavers, the percentage engaged in full-time work rose from 60 per cent in 1997, to 71 per cent in 2000. Similarly, among later school leavers, the proportion in full-time work rose from 49 per cent in 1998 to 65 per cent in 2000. And the proportion of completers (not in higher education) who were in full-time work rose from 48 per cent in 1999 to 61 per cent in 2000.

Combining full-time employment with education and training: Combining full-time work with study provides an important way of increasing the skills base of young people who enter full-time work immediately or soon after leaving school. This may be especially important for school non-completers. The results presented in Table 9 suggest that a large proportion of those who enter full-time work immediately or soon after leaving school, do also engage in educational and training activities. In 1997 and 1998, over half of the early school leavers in full-time work were also engaged in post-school education or training. Similarly, in 1998 over half of the later school leavers in full-time work were engaged in educational or training activities.

As the length of time since leaving school increased, the proportion of non-completers combining full-time work with education or training activities declined, reflecting the completion of initial courses of study. Thus, by 2000, only 27 per cent of the early school leavers were combining full-time work and study, compared with 44 per cent who were in full-time work but not studying. Similarly, only 28 per cent of the later school leavers combined full-time work with

study in 2000, compared with 37 per cent who were in full-time work but not studying. Fewer completers not in higher education combined full-time work with study (20 per cent in 1999 and 22 per cent in 2000).

Part-time employment: In any given year after leaving school, 7 to 10 per cent of early leavers, later leavers and completers who had not entered higher education were in part-time employment that was *not* coupled with full-time study, and very few part-time workers were engaged in part-time study. The majority of part-time workers who had not entered higher education expressed a preference for full-time work.[12] Whether part-time work provides a stepping stone to full-time labour market activities, or whether this group of school leavers are experiencing problems in the transition from school to work, will be explored in the following chapter.

Not working: The 'not working' category reported in Table 9 excludes persons in full-time study, but includes part-time students. Very few young people were studying part-time while not working (about 1 per cent of each school leaver group at each time point).

Of those not working (and not in full-time study), the majority were looking for work. The proportion of early and later school leavers who were looking for work was similar: around 13 to 14 per cent of non-completers were looking for work at the time of interview in 1998, falling slightly to around 10 to 11 per cent in 2000. In contrast, the proportions of completers who did not enter higher education and who were unemployed were substantially lower (6 per cent at the time of interview in both 1999 and 2000).

The number of non-completers in this cohort who were not in the labour force increased marginally over time. For example, the proportion of early school leavers outside the labour force rose from 5 per cent in 1997, to 7 per cent in 2000. Similarly, the proportion of later leavers rose from 3 per cent in 1998, to 8 per cent in 2000. The proportion of completers not in higher education who were outside the labour force in 2000 was substantially less (3 per cent).

Gender differences: The activities of males and females are reported separately in Table 10 and Table 11. Among both non-completers and completers, females were more likely than males to be full-time students in each post-school year. However, females were less likely than males to combine full-time work with study or training. This is partially a reflection of the different types of educational and training activities engaged in by males and females. (A higher number of males were engaged in apprenticeships; apprentices were classified as working full-time and engaged in post-school education and training). Similar proportions of males and females were in full-time employment but not studying.

Among non-completers, females were more likely than males to be working part-time, or outside the labour force, and by 2000 females were less likely than males to be looking for work. A further examination of the main activities of persons outside the labour force revealed that the majority of female non-completers who were outside the labour force were involved in home duties or looking after children (82 per cent). Among school completers, gender differences in the proportion in part-time work, unemployment or outside the labour force had not emerged by the time of interview in 2000.

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12 In each year since leaving school, between 60 and 75 per cent of the non-completers in part-time work said they would prefer to be working full-time. Just under 60 per cent of the subgroup of completers who were outside higher education and working part-time also expressed a preference for full-time work. Data from the 1997 Labour Force Survey also support this claim. Among *non-student* part-time workers, 65 per cent of females and 72 per cent of males expressed a preference for longer hours (Wooden, 1998:38).

Summary

This chapter has demonstrated that in each year between 1997 and 2000, there were substantial differences in the post-school education, training and labour market activities of early school leavers, later school leavers, and school completers. The aggregate annual data also show that the proportions engaged in full-time employment increased as the length of time since leaving school increased, suggesting that substantial numbers in the study cohort had made a successful transition to work by 2000. However, young people do not necessarily progress in a linear manner from full-time education to full-time work. In the next chapter we examine the pathways young people follow when making the transition from school to work, and the role of post-school education and training in this process.

6. PATHWAYS FROM SCHOOL

Introduction

The transition to adulthood involves a number of changes. These changes are often dependent upon achieving economic independence, and for most young people, economic independence involves obtaining a full-time job that offers career prospects (Kirby, 2000:40). The concept of a transition from school to work implies a linear process, whereby young people move from school, possibly into post-school education and training, and then into stable full-time work. Increasingly, however, young people move in and out of a range of activities in the early post-school years, including education, full-time employment, part-time employment, unemployment, and non-labour market activities. Consequently, the focus of this chapter is the various pathways young people follow in the transition from school to (full-time) work.

While the majority of young people do engage in full-time education, training or labour market activities in the early post-school years, a number of youth labour market researchers have stressed that others experience problems in making the transition from school to work, and that school non-completers may be particularly at risk. Studies point to young people 'milling and churning' within various forms of marginal activities in the immediate post-school years and suggest that it may take several years to secure permanent full-time work (McClelland et al, 1998; Misko, 1999:34-5).

A number of commentators have argued that definitions of marginal activities, economically precarious situations, or 'at risk' youth should include not only the unemployed and persons outside the labour market who are not studying, but also persons in part-time or casual work that are not coupled with study (Kirby, 2000:65; McClelland et al, 1998; Sweet, 1998:7). There are a number of reasons advanced for treating such young people as a single group for policy purposes. First, for many young people, the boundaries between these marginal activities are highly fluid (Sweet, 1998:7). Second, part-time workers, the unemployed, and young people outside the labour force have low incomes and uncertain labour market prospects, but those who undertake training or further study may gain skills and credentials to offset this disadvantage and improve their employment prospects (Kirby, 2000:65).

The above definitions of marginal activities are closely related (in the obverse) to the current ABS definition of full-time activity or fully active persons. The full-time participation rate is defined as the proportion of a particular age group that is in full-time education or training, in full-time work, or engaged in a combination of both part-time work and part-time education and training (ABS, 2002). The Ministerial Council on Education, Employment, Training and Youth Affairs has recently endorsed this measure of participation as a key performance measure for national reporting (MCEETYA, n.d.). Similarly, the Dusseldorp Skills Forum's (2002) recent analysis of how young people are faring in Australia included as a key indicator the proportion of young people not in full-time education and not in full-time employment (although those who were combining part-time education and part-time employment were classified as 'at risk' rather than fully active in their analysis) (p. 7).

The LSAY data permit an estimation of the proportion of young people who experience smooth school to work transitions, and an investigation of whether there is a group of young people that remains locked in marginal activities from year to year. In the previous chapter, Table 9 provided a detailed annual 'snapshot' of the educational and labour market activities of non-completers and completers in the years from 1997 to 2000, but did not present information on how individuals moved between activities over time. In this chapter, we present three sets of analyses. First, we examine how school non-completers and completers move between various types of education, training and labour market activities from year to year. Second, we identify the

proportion of non-completers and completers in this cohort who do not experience a smooth transition from school to full-time education, training or labour market activities. Third, we compare the profiles of those who do and do not make successful post-school transitions, and discuss the influences on transitions from school.

Analysing pathways from school

Annual pathways between the following five types of education, training and labour market activities are analysed in this section:

- Full-time study;
- Full-time work, coupled with education or training;
- Full-time work, not studying;
- Part-time work/part-time study (includes the following three categories: working part-time coupled with part-time study; working part-time but not studying; and not working but studying part-time); and
- Not working/not studying (includes the following two categories: looking for work, not studying; and not in the labour force, not studying).

Due to sample size considerations and in order to simplify presentation, it was necessary to collapse the categories used in Table 9 into these five groups. Nevertheless, the collapsed activity categories do allow a meaningful analysis of those who move into full-time education, training and labour market activities, and those who do not. The latter two categories include all those not engaged on a full-time basis in educational, training and/or paid work activities. In our discussion, we refer to these two categories collectively as 'marginal activities'; that is, marginal to full-time work or full-time study.[13] This definition is more stringent than the definitions discussed in the introduction to this chapter, as it includes the very small proportion of young people who combine part-time study with part-time work. It was adopted for both substantive and empirical reasons. First, we were concerned to assess whether such young people are able to move into full-time employment. Second, the initial results describing young people's pathways, presented below, provide some empirical justification for placing persons engaged in part-time study/part-time work in the marginal activities category.

The annual pathways of non-completers are presented in Table 12, and the pathways of completers who did not enter higher education in their first two post-school years (that is, in 1999 or 2000) are presented in Table 13. As the majority of school completers who entered higher education were engaged in full-time post-school study in both 1999 and 2000, it is too early to assess how the early labour market outcomes of this group differ from either non-completers or completers without higher education. Consequently, the results for completers who entered higher education by 2000 are not discussed in the text, but for interested readers a pathways diagram for this group is included in Appendix 4 (Table 39).

Movement within full-time educational and labour market activities

A large proportion of young people moved into and remained in full-time work and/or full-time education and training activities in the first few post-school years.

13 This definition should not be confused with the ABS definition of 'marginal attachment'. It should also be emphasised that the term 'marginal' is not intended as a subjective assessment of the value of these activities. For example, the experience of not being in the labour force may be positive (as in the case of persons who are travelling and those who chose to stay home to care for young children) or negative (as in the case of discouraged job-seekers who are no longer actively seeking employment).

Table 12 Annual pathways of non-completers, 1997-2000 (n=1689)

Activity in 1997	(col %)	Activity in 1998 (row %)					
		At school /FT study	FT work + study	FT work only	PT work /PT study	Not working nor studying	Total %
At school/FT study	46	26	26	20	11	18	100
FT work+ study	20	4	71	18	4	3	100
FT work only	16	7	15	53	12	13	100
PT work/PT study	7	12	20	36	20	12	100
Not work nor study	11	15	10	16	12	47	100
Total %	100	16	31	25	10	17	100
Activity in 1998	**(col %)**	**Activity in 1999 (row %)**					
		At school /FT study	FT work + study	FT work only	PT work /PT study	Not working nor studying	Total %
At school/FT study	16	30	15	24	10	20	100
FT work+ study	31	8	60	21	5	6	100
FT work only	25	2	15	65	8	10	100
PT work/PT study	10	3	16	45	20	17	100
Not work nor study	17	14	9	23	14	40	100
Total %	100	10	28	35	10	16	100
Activity in 1999	**(col %)**	**Activity in 2000 (row %)**					
		At school /FT study	FT work + study	FT work only	PT work /PT study	Not working nor studying	Total %
At school/FT study	10	34	14	24	11	16	100
FT work+ study	28	.	70	25	1	3	100
FT work only	35	2	11	68	7	12	100
PT work/PT study	10	4	8	32	36	21	100
Not work nor study	16	3	8	19	12	57	100
Total %	100	5	27	40	9	18	100

Non-completers: The results presented in the shaded areas of Table 12 demonstrate that the majority of non-completers who engaged in full-time study or full-time work in any given year remained in full-time educational and labour market activities in the following year. For example, of the non-completers in full-time study in 1997, 72 per cent were in full-time educational or labour market activities in 1998. Similarly, 93 per cent of non-completers in full-time work coupled with education and training in 1997, and 75 per cent of non-completers in full-time work not coupled with study, remained in full-time educational, training or labour market activities in 1998. A similar pattern is evident in subsequent years.

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Table 13 Annual pathways of school completers who did not enter higher education in the first two post-school years, 1999-2000 (n=3239)

Activity in 1999	(col %)	Activity in 2000 (row %)					
		At school /FT study	FT work + study	FT work only	PT work /PT study	Not working nor studying	Total %
At school/FT study	33	42	12	25	12	9	100
FT work+ study	20	2	56	33	5	4	100
FT work only	28	5	16	65	8	6	100
PT work/PT study	12	11	17	31	29	12	100
Not work nor study	8	12	11	29	21	27	100
Total %	100	18	22	39	12	9	100

Note: Over 99 per cent of the school completers were in secondary school in 1997 and 1998.

School completers who did not enter higher education: Table 13 presents the pathways of school completers who did not enter higher education in their first two post-school years (that is, in 1999 or 2000). The results in the shaded area demonstrate that the majority of those who were engaged in full-time educational or work activities in the first post-school year (1999) also remained in such activities in 2000. That is, 79 per cent of those who were full-time students, 91 per cent of those who combined full-time work with study, and 86 per cent of those who were in full-time work but not studying in 1999, remained in some form of full-time education, training or paid work in 2000.

Movement in and out of marginal educational and labour market activities

While the majority of both the non-completer and completer groups experienced a smooth transition from school to post-school labour market, education or training activities, the row percentages in the unshaded areas of Table 12 and Table 13 demonstrate that there is also a group of young people who spend time in marginal activities. Furthermore, non-completers tend to be more likely than completers to remain in marginal activities.

Non-completers: Between 27 to 30 per cent of non-completers leaving full-time study in any given year were engaged in marginal activities in the following year (that is, in part-time work and/or part-time study, or not working nor studying). Similarly, among non-completers in full-time work in any given year, a number moved into marginal activities by the following year. However, it appears that coupling full-time work with education and training is protective against moving into marginal activities. For example, only 4 per cent of non-completers in full-time work coupled with study in 1999, compared with 19 per cent of non-completers who were in full-time work but not studying in 1999, were engaged in marginal activities at the time of the 2000 interview (Table 12).

A large proportion of non-completers who were in marginal activities in any given year, remained in marginal activities a year later. This is especially the case for the group who were neither working nor studying at any given time point. For example, 57 per cent of those who were part-time workers/part-time students in 1999, and 69 per cent who were neither working nor studying in 1999, remained in marginal activities in 2000.

Nevertheless, part-time work or study does provide a stepping-stone to full-time work for many non-completers. Between 40 per cent and 61 per cent of non-completers in part-time activities in any given year were in full-time work the following year. This is consistent with the findings of Gaston and Timcke (1999) who reported that part-time casual work is associated with remaining in employment, and for part-time casual workers who wish to increase their hours of work, labour

market experience and on-the-job training gained through part-time work increases the chances of moving into permanent full-time employment within a five year period.

However, moving from marginal activities into full-time work and/or full-time study appears to become less common for non-completers with time. For example, between 1998 and 1999, 64 per cent of part-time workers/part-time students moved into full-time work/full-time study, compared with only 44 per cent between 1999 and 2000. Similarly, 46 per cent of the non-completers who were not working/not studying moved into full-time work/full-time study between 1998 and 1999, but this had fallen to 30 per cent between 1999 and 2000.

Comparisons with school completers who did not enter higher education: Between 1999 and 2000, movement out of marginal activities was more common among the school completers who did not enter higher education than among the non-completer group. Among the completer subgroup, 59 per cent of those in part-time work/study activities, and 52 per cent of those not working or studying in 1999, moved into (non-university) full-time study or work by 2000 (Table 13). The corresponding percentages for the non-completer group were considerably lower (44 per cent and 30 per cent respectively) (Table 12).

Completers in non-university full-time study or full-time work not coupled with study were slightly less likely than their non-completer counterparts to move into marginal activities. Twenty-one per cent of completers in (non-university) full-time study compared with 27 per cent of non-completers in full-time study moved into marginal activities between 1999 and 2000. Similarly, 14 per cent of completers in only full-time work in 1999 compared with 19 per cent of non-completers moved into marginal activities a year later.

Identifying at-risk groups

The analyses presented above illustrate movement between activities from one year to the next. It is clear that there is not one linear pathway from school to work that is followed by all young persons; rather, a multitude of pathways is evident. We have contrasted the experiences of non-completers with those of school completers who did not enter higher education. By 2000, the non-completer group had been out of school for up to five years, and the completer group had been out of school for up to two years. The majority of both groups were engaged in full-time education, training or work activities at each time point considered. However, an examination of pathways into, within and out of marginal activities suggests that the transition experiences of the completer group are somewhat better than those of non-completers. For example, between 1999 and 2000, the completers were less likely to move into or remain in marginal activities, and more likely to move out of marginal activities.

In this section, a summary measure of post-school pathways is developed in order to identify those most at risk of not entering full-time work or study activities. Four types of post-school pathways are identified:

- Pathway 1: those who were engaged in full-time labour market, education or training activities at the time of each annual post-school interview;
- Pathway 2: those who engaged in a mix of full-time work/study and marginal activities in their post-school years, but who were in full-time work/study at the time of the 2000 interview;
- Pathway 3: those who engaged in a mix of full-time work/study and marginal activities in their post-school years, but who were in marginal activities at the time of their 2000 interview; and
- Pathway 4: those who were in marginal activities at the time of each post-school annual interview.

Table 14 Pathways of non-completers and completers who did not enter higher education (column per cent)

	Non-completers	Completers who did not enter higher education
Pathway 1: Full-time work, education or training at the time of each annual interview	48	68
Pathway 2: Some time spent in marginal activities, but in full-time work/ study in 2000	24	11
Pathway 3: Some time spent in marginal activities, *not* in full-time work/ study in 2000	19	12
Pathway 4: Marginal activities at the time of each annual interview	9	9
(Total N)	(1645)	(3216)

The proportions of non-completers and completers not in higher education whose transitions from school were characterised by the above pathways are reported in Table 14. A higher proportion of the completers (68 per cent) than non-completers (48 per cent) were engaged in full-time work/study activities at the time of every post-school interview (Pathway 1). However, by 2000 the relative disadvantage experienced by non-completers had diminished. Seventy-nine per cent of the completer subset were engaged in full-time labour market or educational activities by 2000, compared with 72 per cent of non-completers (Pathway 1 and Pathway 2). This suggests that non-completers face greater problems when they first leave school, but by the time the completers not directly entering full-time tertiary education had been out of school for two years, this relative disadvantage had lessened.

A similar proportion of non-completers and completers who did not directly enter full-time tertiary education, were engaged in marginal activities at the time of each post-school interview (9 per cent) (Pathway 4).

Influences on remaining in marginal activities in the early post-school years

The social background and educational characteristics of young people who experienced each of these pathways are reported in Table 15. The results for non-completers are presented in Panel 1, and the results for the subset of completers who did not engage in higher education in their first two post-school years are presented in Panel 2. In order to assess the independent effects of each of the social background and schooling factors on remaining in marginal activities (Pathway 4), a series of logistic regression models were analysed. The influence of gender, parents' occupational status, language background, region, school sector, literacy and numeracy, and school completion status were examined.[14] The results are presented in Table 16, for the total sample, and separately for males, females, non-completers[15] and completers not in higher education.

14 The influence of post-school qualifications and labour market experience could not be tested, as they form part of the definition of the dependent variable. That is, persons who engaged in post-secondary education or training, or who had gained some labour market experience, by definition had not been consistently engaged in marginal activities since leaving school.

15 Due to sample size constraints, it was necessary to combine early school leavers and later school leavers for this analysis.

Table 15 Social background and educational characteristics of young people with different labour market, educational and training pathways (row per cent)

	N	Pathway 1: Full-time work, education or training at the time of each annual interview	Pathway 2: Some time spent in marginal activities, but in full-time work/study in 2000	Pathway 3: Some time spent in marginal activities, *not* in full-time work/study in 2000	Pathway 4: Marginal activities at the time of each annual interview
PANEL 1: Non-completers					
Gender					
Female	987	34	28	24	13
Male	658	58	22	15	5
Parental occ group					
Prof/managerial	435	52	29	12	6
Clerical/sales/personal serv	398	56	21	16	7
Skilled manual	173	48	19	23	10
Semi/unskilled manual	373	44	24	24	7
Language background					
English	1489	49	25	18	8
Other	83	41	21	26	13
Region					
Metropolitan	709	49	25	16	9
Regional	475	46	23	21	10
Rural/remote	462	49	23	20	8
School sector					
Government	1359	47	25	19	9
Catholic	185	52	21	19	8
Independent	102	59	20	16	5
Literacy & numeracy (Yr 9)					
Very high	87	50	27	14	9
High	423	52	25	16	7
Low	541	50	22	18	9
Very low	594	44	25	22	10
School completion status					
Early leaver	657	52	23	18	7
Later leaver	989	46	25	19	10
PANEL 2: Completers not in higher education					
Gender					
Female	1591	65	11	13	11
Male	1625	71	11	11	6
Parental occ Group					
Prof/managerial	1101	71	11	12	7
Clerical/sales/personal serv	419	68	10	13	8
Skilled manual	642	71	10	11	8
Semi/unskilled manual	646	65	14	11	10
Language background					
English	2811	69	11	12	8
Other	310	63	10	14	13
Region					
Metropolitan	1766	68	11	13	8
Regional	783	68	10	12	10
Rural/remote	666	68	13	11	8
School sector					
Government	2317	67	11	13	9
Catholic	617	70	12	10	8
Independent	282	68	12	11	8
Literacy & numeracy (Yr 9)					
Very high	258	72	10	12	6
High	1150	69	11	12	8
Low	1027	67	12	13	8
Very low	782	66	11	13	10

Table 16 Influences on consistently being engaged in marginal activities in each post-school year, non-completers and completers not in higher education (logistic regression coefficients)

	Column 1: Persons (n=3908)	Column 2: Males (n=1987)	Column 3: Females (n=1921)	Column 4: Non-completers (n=1250)	Column 5: Completers not in H.E. (n=2658)
PANEL 1: Unstandardised					
Intercept	- 2.61 ***	-3.61***	-2.50***	-2.05***	-2.11***
Gender					
Female	.	.	.	.	.
Male	- 0.78***	.	.	-1.56***	-0.46**
Parental occ status (ANU3/10)	- 0.04	-0.10†	-0.02	0.003	-0.06†
Language background (home lang)					
English	.	.	.	.	.
Other	0.34	0.03	0.49†	-0.10	0.35
Region					
Metropolitan	.	.	.	.	.
Regional	0.25†	-0.29	0.51**	0.44†	0.15
Rural/remote	0.09	0.11	0.12	0.31	-0.02
School sector					
Government	.	.	.	.	.
Catholic	- 0.02	0.14	-0.12	-0.27	0.03
Independent	0.11	0.27	-0.01	-0.40	0.24
Literacy & numeracy (Year 9)	- 0.03	-0.01	-0.06	0.06	-0.06
School completion status					
Early leaver	.	.	.	.	.
Later leaver	0.67**	0.70	0.62*	.	.
Completer not in higher ed	0.52*	1.24**	0.14	.	.
PANEL 2: Standardised					
Gender					
Female	.	.	.	.	.
Male	- 0.22	.	.	-0.44	-0.13
Parental occ status (ANU3/10)	- 0.05	-0.12	-0.02	0.004	-0.08
Language background (home lang)					
English	.	.	.	.	.
Other	0.05	0.005	0.07	-0.01	0.05
Region					
Metropolitan	.	.	.	.	.
Regional	0.06	-0.07	0.12	0.11	0.04
Rural/remote	0.02	0.03	0.03	0.08	-0.004
School sector					
Government	.	.	.	.	.
Catholic	- 0.004	0.03	-0.03	-0.05	0.01
Independent	0.02	0.04	-0.001	-0.06	0.04
Literacy & numeracy (Year 9)	- 0.02	-0.01	-0.03	0.03	-0.03
School completion status					
Early leaver	.	.	.	.	.
Later leaver	0.15	0.17	0.13	.	.
Completer not in higher ed	0.14	0.34	0.04	.	.

† 0.10>P>0.05; * 0.05>P>0.01; ** 0.01>P>0.001; *** P<0.001

For both non-completers and completers, the associations between post-school pathways and parental occupation, language background, region, school sector, and literacy and numeracy were very weak (Table 15). Furthermore, none of these factors exerted a significant independent influence on young people remaining in marginal activities over a number of post-school years (Table 16). Only the effects of gender and school completion status were statistically significant, and these are discussed below.

Gender: Of the potential influences considered in this chapter, gender had the strongest association with post-school pathways. Males were more likely to have been engaged in full-time labour market, education or training activities at the time of each post-school annual interview (Table 15, Pathway 1), while females were more likely to have spent some or all of their time in marginal activities, and to still be engaged in such activities by 2000 (Table 15, Pathways 3 & 4). This pattern is evident among both non-completers and completers who did not enter higher education in their first two post-school years, and the relationship is slightly stronger among the non-completer group. Fewer labour market opportunities for young females, especially for female non-completers, and the historical dominance of males in the uptake of apprenticeships may partially explain why girls are less likely than boys to leave school before the completion of Year 12.

Gender remained a significant influence on remaining in marginal activities, after controlling for the effects of other social background and schooling factors (Table 16, Column 1). Females had a higher likelihood of being in marginal activities at the time of each interview. As more females were engaged in part-time work, or outside the labour force, this finding is not particularly surprising. The relationship between gender and unemployment will be explored in the following chapter.

School completion status: After controlling for the effects of social background and achievement in literacy and numeracy, amount of schooling emerged as a significant influence on remaining in marginal activities. Of the school leaver groups, early school leavers had the lowest risk of remaining in marginal activities (Table 16, Column 1). This finding may partially reflect the amount of time spent in the labour market. As a group, early school leavers had been out of school for the longest period of time, and consequently had had longer to find employment.

Summary

The post-school experience has been described as 'fluid and negotiated' (McIntyre et al, 1999:86), and the results presented in Chapter 5 and this chapter confirm that there is no one model of transition, but rather a multitude of pathways.

The majority of young people move into full-time work or study activities within a few years of leaving school. However, just under 10 per cent of school non-completers and completers who do not enter higher education (or 6 per cent of the total sample) remain in marginal activities over a number of years. This group of young people is more likely to be female and to have been out of school for a shorter period of time.

The issue of part-time work among teenagers has been highlighted by a number of commentators. We have argued that it is necessary to distinguish between full-time students who engage in part-time work, and other young people in part-time work. In any given year after leaving school, around 10 per cent of early leavers, later leavers and completers who had not entered higher education, were in part-time work that was not coupled with full-time study. Were these part-time workers underemployed? The results presented in the previous chapter indicate that this was the case, with the majority of non-student part-time workers expressing a preference for full-time work. Does part-time work act as a stepping-stone to full-time employment? Again, our results suggest this is the case. For example, between 40 per cent and 61 per cent of non-completers who were engaged in part-time activities in any given year were in full-time work the following year.

For those who entered full-time work soon after leaving school, the value of combining full-time work with further education and training was also documented in this chapter. Compared with school leavers who engage in full-time work only, those who couple full-time work with education and training are less likely to move into marginal activities in subsequent years. These benefits are evident among both non-completers, and completers who did not enter higher education.

7. EXPERIENCES OF UNEMPLOYMENT

Introduction

Youth unemployment is an important policy concern for industrialised countries such as Australia. At the macro-economic level, youth unemployment can lead to increased government expenditure on unemployment benefits and other services, a decrease in taxation revenue, and reduced spending on goods and services (Speirings, 2001:22). At the individual level, sustained or repeated episodes of unemployment have the potential to lead to serious negative consequences for young people themselves, reducing their chances for establishing stable career paths. Some may become disillusioned, opting out of the labour market altogether. A range of non-economic problems has also been associated with unemployment, including low self esteem, poor health, crime, and youth suicide (Graetz, 1993; Marks and Fleming, 1998a:1; Ryan, 2001:46-47). More generally, unemployment decreases chances for full participation in society.

Past research, based upon cohorts of young people who had been enrolled in early secondary school between the mid 1970s and early 1990s, suggests that the non-completion of secondary school is associated with a higher incidence and duration of unemployment, at least in the early post-school years. Other groups of young people are also at higher risk of experiencing unemployment, including those from low socioeconomic backgrounds, language backgrounds other than English, non-metropolitan areas, government schools, and those with low levels of literacy and numeracy (Marks & Fleming, 1998a; Lamb et al, 2000:50).

In Chapter 5 we reported that a significant number of school leavers who had been in Year 9 in 1995 were unemployed at the time of the 1997 to 2000 annual post-school interviews. In this chapter, we provide a more detailed examination of recent school-leavers' experiences of unemployment. We report the proportion of time since leaving school spent unemployed, and unemployment rates at the time of each annual interview. We then identify characteristics of unemployed young people, and the influences on unemployment in late 2000. We conclude the chapter with a discussion focusing on differences between school completers and non-completers.

Amount of time spent unemployed since leaving school

Panel 1 of Table 17 reports the proportion of time that early school leavers, later leavers and completers not in higher education spent unemployed in each year from 1997 to 2000. In any given year, the majority of school leavers did not report a period of unemployment. Furthermore, the proportions reporting no periods of unemployment in a calendar year increased between 1998 and 2000. Sixty-seven per cent of early leavers and 60 per cent of later leavers reported not experiencing unemployment in 1998. By 2000, these figures had risen to 80 per cent and 77 per cent respectively. A similar proportion of completers not in higher education reported no period of unemployment in 2000 (79 per cent).

Table 17 Unemployment since leaving school, January 1997-August 2000

	Early school leavers					Later school leavers					Completers who did not enter higher ed.				
	1997	1998	1999	2000	1997-2000	1997	1998	1999	2000	1997-2000	1997	1998	1999	2000	1997-2000
Panel 1: % time unemployed[1]															
0%	75	67	73	80	47	73	60	65	77	42	.	.	63	79	55
1-24%	6	11	12	8	35	2	13	14	7	37	.	.	17	7	31
25-49%	8	9	7	4	11	5	12	9	5	12	.	.	10	7	8
50-74%	2	5	2	2	5	6	6	6	4	6	.	.	4	3	5
75-99%	5	5	4	2	2	2	4	4	4	2	.	.	4	1	1
100%	3	3	2	4	.	12	5	2	3	1	.	.	2	3	1
(Total N)	(665)	(677)	(677)	(677)	(677)	(539)	(969)	(1010)	(1010)	(1010)	.	.	(3170)	(3217)	(3191)
Panel 2: Unemployment rate at time of interview[2]	13	15	11	11	-	22	18	15	15	-	.	.	9	8	-
(N)	(549)	(594)	(582)	(599)	-	(305)	(748)	(829)	(860)	-	.	.	(2111)	(2567)	-

1. Based upon the total active sample in 2000.
2. Based upon persons in the labour force.

Turning to the *total proportion of time spent unemployed between 1997 (or since leaving school) and late 2000*, just under half of the early school leaver group, and 42 per cent of later leavers reported no episodes of unemployment, compared with 55 per cent of completers not in higher education. Very few reported being unemployed for over half of the time since leaving school (7 per cent of early leavers, 9 per cent of later leavers, and 7 per cent of completers). No early leavers, and only 1 per cent of the later leavers and completers reported being unemployed for the entire post-school period, suggesting that the majority of persons in the labour market were able to find employment.

Nevertheless, at any time point a significant number of school leavers reported being unemployed, as evidenced by the unemployment rates for those in the labour force (see Panel 2 of Table 17).

Influences on unemployment in 2000

It is of policy interest to identify the groups who are most likely to experience unemployment, and the influences on unemployment. The focus of this section is on unemployment in late 2000. Three sets of potential influences are examined: social background; schooling; and post-school education and training. The social background characteristics include gender, parental occupation, language background and region. The schooling factors include school sector, achievement in literacy and numeracy in Year 9, and the amount of schooling received (school completion status). Post-school education and training includes the completion of New Apprenticeships and other qualifications[16] (see Figure 15). Social background and school sector represent ascribed characteristics; that is, characteristics beyond the control of the individual young person. The other schooling factors, and post-school education and training, represent achieved credentials and skills, or human capital.

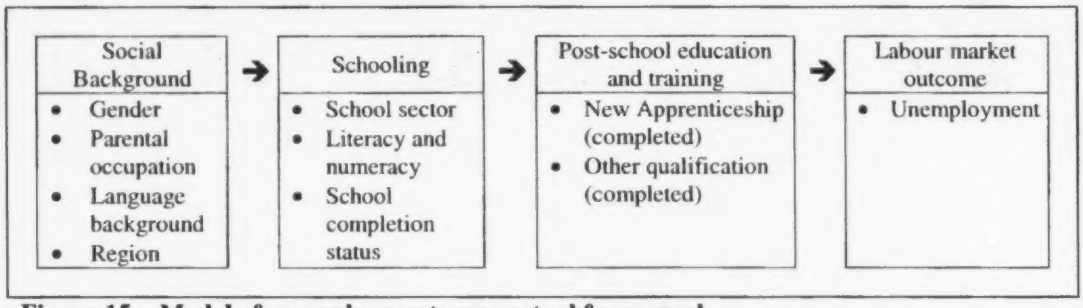

Figure 15 Model of unemployment: conceptual framework

The relative influence of ascribed characteristics and human capital are implicit in many sociological and economic theories. Social reproductionists stress the role of ascribed characteristics in both human capital formation and labour market outcomes. Human capital theorists, on the other hand, emphasise the role of education and skills acquired in the labour market. From a policy perspective, a strong influence of ascribed characteristics would indicate areas of disadvantage which need to be addressed. Conversely, a strong influence of human capital characteristics on labour market outcomes would suggest the operation of a more meritocratic labour market and the need for policies promoting the development of human capital. As indicated in the introduction to this chapter, past research suggests that both ascribed characteristics and human capital influence the ability of young people to secure employment.

16 Current participation in post-school education and training is not included in the model, as New Apprenticeships are a form of work-based training; that is, all current New Apprentices are employed.

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Two sets of analyses are presented. First, the unemployment rates for each sociodemographic and educational group are reported (Table 18). Second, the independent influence of each characteristic on unemployment is assessed using logistic regression. Separate models were estimated for the total sample, males and females, and for non-completers[15], and completers not in higher education (Table 19). The results are used to address the following research questions:

- What are the characteristics of unemployed young people (Table 18)?
- Do these characteristics exert an independent effect on unemployment, or can their effects be explained by other factors (Table 19, Column 1)? For example, is the influence of parental socioeconomic status mediated or explained by the educational attainments of young people from different socioeconomic backgrounds?
- Are there gender differences in the influences of ascribed characteristics and human capital on securing employment, and are different forms of human capital important for males and females (Table 19, Columns 2-3)?
- Are there differences between non-completers and completers in the influences of ascribed characteristics and human capital on being unemployed? Are different forms of human capital important for non-completers and completers (Table 19, Columns 4-5)?

Analyses exclude completers in higher education, full-time students and other persons not in the labour force in 2000.

Gender: A lack of job and apprenticeship opportunities for teenage girls is often cited as a reason for the higher school completion rates of females. However in late 2000, the unemployment rates of males and females who had been in Year 9 in 1995 were similar (10 per cent and 9 per cent respectively) (Table 18, Column 1), suggesting that gender does not influence the ability to secure employment in this age group. Marks and Fleming (1998a) reached a similar conclusion after analysing data on the *incidence* of unemployment among young people who had been enrolled in early secondary school between the mid 1970s and the mid 1980s. Furthermore, they found that young males were disadvantaged in relation to unemployment *duration*.

Parental occupation: Parental occupational status is an indicator of family socioeconomic background. Young people whose parents were employed in skilled occupations (professionals, managers or tradespersons) had significantly lower unemployment rates than young persons whose parents were in semi/unskilled manual occupations (7 per cent and 12 per cent respectively) (Table 18, Column 1). The influence of parental occupation remained significant after controlling for other social background and educational characteristics (Table 19, Column 1).

Language background: Of the groups of young people considered in this chapter, young people from language backgrounds other than English had the highest unemployment rate (15 per cent of those who had not entered higher education) (Table 18, Column 1). The influence of language background on unemployment remained significant after controlling for other socioeconomic and educational factors included in the multivariate model (Table 19, Column 1). In both the bivariate and multivariate models, the odds of young people from language backgrounds other than English being unemployed (relative to being employed) were 1.8 times those of young people from English-speaking backgrounds.

It should be remembered that within the study cohort, persons from language backgrounds other than English were more likely than other young people to stay on to Year 12 (Chapter 3) and progress to higher education in the immediate post-school years (Marks et al, 2000), and that those currently in higher education are likely to experience superior labour market outcomes in later years. However, the subset of recent school leavers from language backgrounds other than English who were not in higher education or other full-time study in 2000 did experience problems securing employment.

Region: The unemployment rates for recent school leavers in metropolitan, regional and rural areas were similar (Table 18 & Table 19).

School sector: Young people from government schools had slightly higher unemployment rates than persons from Catholic and independent schools (10 per cent, compared with 7 per cent and 8 per cent respectively) (Table 18, Column 1). However, school sector did not exert a significant independent effect on unemployment after controlling for other socioeconomic and educational characteristics (Table 19, Column 1).[17]

Literacy and numeracy achievement in Year 9: Literacy and numeracy achievement in Year 9 was related to unemployment among recent school leavers. Persons with high literacy and numeracy levels had lower unemployment rates than persons with low levels of literacy and numeracy. An examination of the standardised regression coefficients in the first column of Table 19 suggests that of the characteristics considered in this chapter, literacy and numeracy level exerts the strongest influence on recent school leavers' unemployment rates.

School completion status: School completers had a lower unemployment rate than non-completers. Of those in the labour market, 8 per cent of completers not in higher education, compared with 11 per cent of early leavers and 13 per cent of later leavers, were unemployed at the time of the 2000 interview (Table 18, Column 1). However, after controlling for other social background and educational factors, completers were not significantly less likely than early school leavers to be unemployed. Later leavers were significantly more likely than early leavers to be unemployed, net of other factors in the model (Table 19, Column 1). This suggests that for non-completers, length of time in the labour market is positively related to employment status; that is, the longer a non-completer has been out of school, the more time they have had to find employment. By 2000, the length of time spent in the labour market by the early school leavers in this study had the same net effect as Year 12 completion on securing employment.

New Apprenticeships: In 1998, apprenticeships and traineeships were merged to form New Apprenticeships. Some of the school leavers in this sample commenced post-school training prior to 1998, and, of those who commenced after the introduction of New Apprenticeships, a number continued to distinguish between apprenticeships and traineeships when responding to interview questions. As the influence on unemployment rates of completing an 'apprenticeship' differs from the influence of completing a 'traineeship', the results for these two types of training are presented separately. Recent school leavers who had completed an apprenticeship had an unemployment rate of 5 per cent, significantly lower than the unemployment rate of 10 per cent for other school leavers (Table 18, Column 1). This influence remained statistically significant after controlling for other social background and educational factors (Table 19, Column 1). The unemployment rate of trainees was higher than that of other school leavers, but this difference was small and not statistically significant.

Other post-school qualifications: 'Other post-school qualifications' refers to the completion of a non-trade qualification. These qualifications were primarily TAFE certificates and diplomas. Recent school leavers who had achieved a non-trade qualification had higher unemployment rates than other school leavers, and this difference remained statistically significant after controlling

17 This finding can be contrasted with the trend described by Marks and Fleming (1998a:15), based upon an analysis of the young people who had been enrolled in early secondary school between the mid 1970s and the mid 1980s. They found that attendance at a government school was associated with a higher incidence of unemployment, and that this influence was stronger in younger cohorts. The discrepant findings may be partially an artefact of the different time frames adopted in the two studies: the data analysed by Marks and Fleming permitted an examination of unemployment over a longer period of time since leaving school, and consequently they were able to include in their analysis persons who had undertaken higher education and entered the labour force (among whom, those from non-government schools are over-represented).

for other factors. This finding may reflect the shorter time spent in the labour market by this group (Table 18 & Table 19). It will be necessary to allow more time to elapse before assessing the overall influence of other post-school qualifications on unemployment.

The relative influence of ascribed characteristics and human capital: The above discussion suggests that both ascribed characteristics and human capital influence unemployment among recent school leavers. The ascribed characteristics that exert a significant influence on unemployment include parental occupational status and language background, and these influences cannot be explained by differing levels of human capital among these groups (see Appendix 4, Table 40). Furthermore, an examination of the standardised regression coefficients shows that of the factors included in the multivariate model, parental occupational status is one of the strongest influences on unemployment. This suggests that parents with higher occupational status are more able to assist their children obtain employment, for example through access to networks and other job search skills.

The strongest influence, however, is an aspect of human capital: level of literacy and numeracy. Persons with higher levels of literacy and numeracy are less likely to be unemployed. Similarly, persons who have completed an apprenticeship have a lower likelihood of unemployment. Later leavers and persons who have completed a non-trade qualification were more likely to be unemployed, but this may be a reflection of having spent less time in the labour market.

Gender differences in the influences on unemployment: The influences on unemployment for males and females are reported in the second and third columns of Table 19. Of the ascribed characteristics, parental occupational status and language background had a significant influence on the unemployment of boys. Males from higher socioeconomic families and English-speaking backgrounds were less likely to be unemployed. Among girls, these background characteristics were not associated with unemployment. However, living in a regional or rural area was associated with higher unemployment for girls, suggesting there are fewer job opportunities for teenage girls in non-metropolitan areas.

Different forms of human capital influenced the likelihood of unemployment among males and females. For teenage girls, literacy and numeracy was the strongest influence on unemployment, while school completion status and post-school qualifications were unrelated to unemployment. For teenage boys, however, the completion of an apprenticeship, and the amount of time in the labour force (measured indirectly by amount of schooling and the completion of non-trade post-school qualifications) were significant predictors of unemployment.

Differences between non-completers and completers in the influences on unemployment: The influences on unemployment for non-completers are reported in the fourth column of Table 19, and the influences for completers not in higher education are reported in the last column. The influence of ascribed characteristics was similar for both completers and non-completers, although the influence of language background only reached statistical significance among the completer group.

For both groups, literacy and numeracy exerted the strongest independent influence on the likelihood of being unemployed. However, the influence of various forms of post-school education and training differed between non-completers and completers. For the non-completers, apprenticeships were associated with a lowered risk of unemployment, while traineeships were associated with higher unemployment. For completers, other qualifications were more influential. Those who had completed an 'other post-school qualification' were more likely to be unemployed at the time of the 2000 interview, possibly reflecting a shorter amount of time spent in the labour market. It will be necessary to allow more time for the completers not in higher education to complete any initial post-school training before an adequate assessment can be made of the employment benefits of New Apprenticeships and other post-school qualifications for this sub-group.

Table 18 Persons in the labour force who were unemployed at the time of the 2000 interview, by sociodemographic and educational group (per cent)

	Column 1: Persons (n=3242)	Column 2: Males (n=1724)	Column 3: Females (n=1518)	Column 4: Non-completers (n=1109)	Column 5: Completers not in H.E (n=2133)
Total	9	10	9	12	8
Gender					
Female	9	.	.	11	8
Male	10	.	.	13	8
Parental occupational group					
Professional/managerial	7	6	8	8	6
Clerical/sales/personal service	10	10	9	15	7
Skilled manual	7	7	8	9	6
Semi/unskilled manual	12	15	9	15	11
Language background (home lang)					
English	9	9	8	11	7
Other	15	18	11	20	13
Region					
Metropolitan	9	11	8	12	8
Regional	9	10	9	13	7
Rural/remote	10	8	11	12	8
School sector					
Government	10	11	9	13	9
Catholic	7	5	9	11	6
Independent	8	8	7	7	8
Literacy & numeracy (Year 9)					
Very high: > 1SD above mean	7	9	4	10	6
High: Mean to 1 SD above mean	6	8	4	7	6
Low: Mean to 1 SD below mean	10	9	11	13	8
Very low: > 1 SD below mean	13	13	14	16	12
Amount of schooling					
Early leaver	11	11	10	11	.
Later leaver	13	14	11	13	.
Completer not in higher education	8	8	8	.	8
Completed an apprenticeship					
Yes	5	6	#	6	#
No	10	10	#	13	#
Completed a traineeship					
Yes	12	20	3	22	5
No	9	10	9	12	8
Completed other post-school qual					
Yes	11	12	11	13	10
No	9	9	8	12	7

Notes:

1. Analysis excludes completers not in higher education, full-time students, and others not in the labour force at the time of the 2000 interview.
2. SD = standard deviation

\# Cell size too small to provide reliable estimates

Table 19 Influences on unemployment, total sample and by gender and school completion status (unstandardised and standardised regression coefficients)

	Column 1: Persons	Column 2: Males	Column 3: Females	Column 4: Non-completers	Column 5: Completers not in H.E.
PANEL 1: Unstandardised					
Intercept	-2.49***	-1.74***	-3.34***	-2.21***	-2.48***
Gender					
Female	.	.	.	.	.
Male	0.13	.	.	0.19	0.03
Parental occ status (ANU3/10)	-0.11***	-0.21***	-0.00	-0.11*	-0.10*
Language background (home lang)					
English	.	.	.	.	.
Other	0.61**	0.67*	0.56	0.64	0.57*
Region					
Metropolitan	.	.	.	.	.
Regional	0.06	-0.27	0.55*	0.19	-0.05
Rural/remote	0.20	-0.26	0.78**	0.33	0.09
School sector					
Government	.	.	.	.	.
Catholic	-0.21	-0.84	0.33	-0.15	-0.25
Independent	0.14	0.09	0.23	-0.46	0.41
Literacy & numeracy (Year 9)	-0.31***	-0.07	-0.62***	-0.30**	-0.28**
School completion status					
Early leaver	.	.	.	.	.
Later leaver	0.50*	0.58*	0.29	.	.
Completer not in higher ed.	-0.07	-0.16	-0.05	.	.
Completed an apprenticeship	-0.81*	-0.69+	#	-0.78*	#
Completed a traineeship	0.49	1.18*	-0.70	0.96*	0.23
Completed other post-school qual	0.35**	0.36+	0.34	0.15	0.41*
PANEL 2: Standardised					
Gender					
Female	.	.	.	.	.
Male	0.04	.	.	0.05	0.01
Parental occ status (ANU3/10)	-0.13	-0.25	-0.00	-0.13	-0.13
Language background (home lang)					
English	.	.	.	.	.
Other	0.08	0.09	0.07	0.07	0.08
Region					
Metropolitan	.	.	.	.	.
Regional	0.02	-0.07	0.13	0.05	-0.01
Rural/remote	0.05	-0.06	0.19	0.09	0.02
School sector					
Government	.	.	.	.	.
Catholic	-0.05	-0.18	0.07	-0.03	-0.06
Independent	0.02	0.01	0.03	-0.06	0.07
Literacy & numeracy (Year 9)	-0.16	-0.04	-0.31	-0.16	-0.14
School completion status					
Early leaver	.	.	.	.	.
Later leaver	0.12	0.14	0.06	.	.
Completer not in higher ed.	-0.02	-0.04	-0.01	.	.
Completed an apprenticeship	-0.10	-0.11	#	-0.15	#
Completed a traineeship	0.04	0.10	-0.07	0.09	-0.02
Completed other post-school qual	0.09	0.09	0.09	0.04	0.11

Notes:

Analysis excludes completers in higher education, other full-time students and persons not in the labour force.

+ 0.10>P>0.05; * 0.05>P>0.01; ** 0.01>P>0.001; *** P<0.001

Cell size too small to provide reliable estimate. Models excluding the 'completed apprenticeship' variable, which were estimated for females and completers not in education, yielded the same substantive findings.

Summary

While most school non-completers leave school with the expectation that they will find employment, this study confirms past research findings that school non-completion is associated with higher unemployment rates in the early post-school years. However, after controlling for the influence of a range of background and educational factors, the picture becomes less clear. Among non-completers there are differences between early and later school leavers, with later school leaving being associated with higher unemployment. In contrast, the odds of completers being unemployed were not significantly different from those of early school leavers, after controlling for other background and educational factors. It must be remembered that the school completers examined in this chapter did not include those who entered higher education after leaving school. School completers with higher education qualifications are likely to experience superior labour market outcomes (including lower unemployment), but the present study cohort (young people who had been in Year 9 in 1995) has had too little experience in the labour market to test this assertion.

Similar socioeconomic characteristics influence the unemployment patterns of non-completers and completers who had not entered higher education. Of the factors examined in this chapter, socioeconomic background is one of the strongest influences on unemployment. Earlier in the report, we noted that socioeconomic background was associated with school completion: students from low socioeconomic backgrounds were less likely to complete senior secondary school. The influence of socioeconomic background continued in the early post-school years. Its influence on unemployment is similar for both non-completers and completers, after controlling for other background and educational characteristics.

A similar pattern is evident for literacy and numeracy achievement, the strongest of the influences on unemployment considered in this chapter. Literacy and numeracy achievement influences the chances of becoming a non-completer, and its influence continues in the post-school years. Its influence is similar among both non-completers and completers, after controlling for other background and educational characteristics.

In contrast, the benefits of various types of post-school education and training differ between non-completers and completers. For non-completers, the completion of an apprenticeship reduces the risk of unemployment in the early post-school years.

8. EXPERIENCES OF EMPLOYMENT: JOB TYPE AND EARNINGS

Introduction

The last two chapters have demonstrated that a small but significant group of recent school leavers experience continuing difficulties in establishing themselves in the labour market. However, the majority of young people do obtain jobs in the early post-school years, and it is to these young people that our attention now turns. Two aspects of employment are addressed in this chapter: job type and earnings.

The type of job first held when entering the labour market can influence earnings and later labour market outcomes. Marks and Fleming (1999:24) noted that the clustering of school non-completers in jobs that typically have limited opportunities for advancement (males in unskilled manual work, and females in sales and personal service work) is potentially problematic.

Various aspects of human capital may influence the occupational attainment and earnings of young people. Past research, both in Australia and in other industrialised nations, has linked years of education to earnings (Marks et al, 1989; Nevile & Saunders, 1998). Similarly, differential returns to various types of post-school qualifications have been noted in Australia. For example, Gregory (1993, 1995) noted high (although diminishing) returns to university degrees, lower returns to non-trade diplomas, and again lower returns to trade and technical qualifications. The relatively low returns to trade and technical qualifications have also been noted elsewhere (Dockery & Norris, 1996; Long et al, 1996; Marks & Fleming, 1998b, Nevile & Saunders, 1998). Employers use years of schooling, qualifications and labour force experience as markers of higher skills and productivity when selecting staff. Pay increments and promotions are also associated with time spent in employment.

Non-completers have fewer years of schooling than completers, and also have lower participation in post-school education and training. Compared with completers of the same age, however, they may have greater levels of labour market experience. Therefore, in the early post-school years, large differences in the earnings of non-completers and completers not in higher education are not anticipated.

This chapter is comprised of several sections. In the first sections, the types of jobs filled by young people and their earnings are described. In the final section, attention turns to the identification of factors influencing occupational status and hourly earnings. Differences between the employment experiences of non-completers and completers not in higher education are highlighted throughout the chapter.

Occupational groups

First Job: We first examine the broad types of jobs held by young people in the immediate post-school years. The first full-time jobs of school non-completers were highly clustered around particular types of occupations. Not surprisingly given their educational qualifications, very few of these young people were employed in skilled white collar jobs (managers and administrators, professionals, or para-professionals). Rather, they found work in less skilled white collar work (clerical/sales/personal service), in trades, and in semi/unskilled manual work (Table 20, Panel 1, Column 1).

There were marked gender differences in the types of full-time jobs first held. Trades and semi/unskilled manual work remained male dominated. For example, 47 per cent of male early school leavers were employed as a tradesperson in their first job, compared with 13 per cent of female early school leavers. Similarly, 40 per cent of male early school leavers were first

employed in unskilled manual occupations, compared with 14 per cent of female early leavers. In contrast, females were clustered in white collar work. Just under 70 per cent of female early leavers were first employed in clerical, sales and personal service positions, compared with 12 per cent of male early leavers. Similar gender differences were evident among later leavers and completers (Table 20, Panel 1, Columns 2-3).

There were also marked differences in the types of jobs first obtained by non-completers and completers not in higher education. Non-completers were less likely than completers to first enter white collar work. (Of those who had held a job since leaving school, 34 per cent of early leavers and 38 per cent of later leavers, compared with 55 per cent of completers not in higher education, were first employed in clerical, sales or personal service occupations). In contrast, non-completers were more likely than completers to be first employed in both trades and semi/unskilled manual positions. These differences between the jobs of completers and non-completers were especially marked for males.

Current Job: The occupations of cohort members who were in full-time employment in 2000 are presented in Table 20 (Panel 2). A broadly similar occupational distribution is evident for first and current full-time occupation. That is, by 2000 relatively few school leavers were found in the upper white collar occupational category (managers/professionals/para-professionals); males remained clustered in manual work while females were clustered in white collar work (clerks, sales and personal service workers); and completers were still more likely than non-completers to be employed in white collar work. However, some changes in the occupational distribution of school leavers occurred between first job and job in 2000.

Table 20 Occupation, by gender and school completion status (column per cent)

	Column 1: Persons			Column 2: Males			Column 3: Females		
	Early leaver	Later leaver	Completer not in H.E.	Early leaver	Later leaver	Completer not in H.E.	Early leaver	Later leaver	Completer H.E.
PANEL 1: First full-time job									
Managers/profs/para-profs	3	4	8	2	4	8	4	4	7
Clerks/sales/personal services	34	38	55	12	17	33	69	70	78
Tradespersons	34	27	15	47	38	27	13	10	4
Semi/unskilled manual workers	30	31	22	40	41	31	14	16	12
(Total N)	(651)	(927)	(2943)	(405)	(554)	(1469)	(246)	(373)	(1475)
PANEL 2: Job in 2000 (full-time workers)									
Managers/profs/para-profs	11	11	14	10	9	13	15	16	15
Clerks/sales/personal services	22	28	48	9	12	25	54	61	74
Tradespersons	41	36	22	53	49	39	15	10	4
Semi/unskilled manual workers	25	25	16	29	30	23	16	13	8
(Total N)	(472)	(632)	(1904)	(332)	(418)	(1012)	(140)	(213)	(892)
PANEL 3: Job in 2000 (part-time workers)[a]									
Managers/profs/para-profs	7	7	9	#	5	11	2	8	8
Clerks/sales/personal services	67	62	65	#	32	49	73	79	77
Tradespersons	5	12	6	#	31	10	5	2	3
Semi/unskilled manual workers	21	18	20	#	33	31	20	10	12
(Total N)	(63)	(134)	(784)	(15)	(47)	(339)	(48)	(87)	(444)

a. Includes full-time (non-higher education) students who held part-time jobs.

Cell sizes are too small to provide reliable estimates.

The proportion of the cohort employed full-time in managerial, professional or para-professional work had increased by the time of the 2000 interview. The majority of this group was employed in para-professional positions.

Females remained highly clustered in other less skilled white collar work, and there was a slight decrease in the proportions of female later leavers and completers employed in semi/unskilled manual work. The proportion of males in the skilled white collar and trades categories increased, while the proportions in clerical/sales/personal service and semi/unskilled manual work declined.

The occupational profile of those in part-time work in 2000 differs from that of full-time workers. The majority of part-time workers were employed in clerical/sales/personal service jobs (67 per cent of early leavers in part-time work, 62 per cent of later leavers, and 65 per cent of completers not in higher education). Relatively few were found in the highest occupational category or in trades positions, supporting the concern that part-time work is concentrated in relatively low-skill occupations that provide limited access to training and promotion opportunities. Non-completers in part-time work do not appear to be more or less disadvantaged than completers in this regard (Table 20, Panel 3).

Occupational status

In order to examine the type of jobs obtained by school leavers in finer detail, we next examine their occupational status. Occupational status in this study was measured by the ANU3 scale, which ranges from 0 (low status) to 100 (high status). Examples of jobs at the bottom of the status hierarchy include various mining, construction and related labourers, forklift drivers, cleaners and product assemblers. Examples of jobs at the top of the status hierarchy are medical practitioners, university teachers and legal professionals (Jones, 1989; McMillan & Jones, 2000). The mean occupational status of the adult workforce is approximately 40 (Jones & McMillan, 2001:554).

Table 21 reports the occupational status of employed school leavers. The average occupational status of first jobs held by school leavers was quite low, reflecting their clustering in the lower skilled occupational groups as discussed above. The average occupational status of first jobs held by early and later school leavers were 20.6 and 21.2 respectively. The average occupational status of first jobs held by school completers not in higher education was marginally higher (23.0), and this difference was statistically significant.

The average occupational status of males' first jobs was lower than that for females, reflecting the clustering of males in (lower status) manual work, and the clustering of females in white collar work. However, these gender differences were quite small, and only statistically significant among the non-completer groups.

The average occupational status of school leavers in full-time work in 2000 was slightly higher than the occupational status of their first jobs held. This suggests that these young people were experiencing a degree of upward progression. Gender differences in occupational status had become more apparent by 2000, with girls holding higher status jobs.

The occupational status of school leavers in part-time work (and not in higher education) in 2000 was lower than that of full-time workers. Gender differences and differences between the early leaver, later leaver and completer groups were not apparent in relation to part-time work.

Table 21 Mean occupational status of first full-time/main job and job at time of 2000 interview, by gender and school completion status

	Early Leavers	Later Leavers	Completers who did *not* enter higher education
PANEL 1: First job			
Persons	20.6 (0.4)	21.2 (0.4)	23.0 (0.2)
Males	19.6 (0.5)	20.0 (0.5)	22.5 (0.3)
Females	22.2 (0.7)	23.0 (0.5)	23.5 (0.3)
PANEL 2: Job in 2000 (full-time workers)			
Persons	23.4 (0.6)	23.9 (0.4)	26.0 (0.3)
Males	21.9 (0.7)	22.4 (0.5)	24.5 (0.4)
Females	26.9 (1.2)	26.8 (0.7)	27.5 (0.4)
PANEL 3:Job in 2000 (part-time workers)[a]			
Persons	19.7 (1.4)	21.5 (1.0)	20.4 (0.4)
Males	#	20.7 (1.5)	20.0 (0.6)
Females	18.9 (1.4)	21.9 (1.3)	20.7 (0.5)

Notes: a. Includes full-time (non-higher education) students who held part-time jobs;

\# Sample size too small to prove reliable estimates;

Standard errors in parentheses.

Levels of Earnings

Table 22 presents information on the post-school earnings of employed young people in the study cohort. Among young people who were in Year 9 in 1995, length of time in the labour market was positively related to median weekly earnings. For each school leaver group, medium weekly earnings increased between 1997 and 2000. Furthermore, early school leavers (who had been in the labour market the longest) had the highest median weekly earnings, followed by later school leavers, while completers not in higher education (who had been in the labour market for the shortest period of time) had the lowest median weekly earnings. This pattern held throughout the period under consideration.

In contrast, the relationship between school completion status and median hourly earnings was more complex. In 1997, early school leavers had a lower median hourly income than later school leavers, but by 1999 the situation had reversed, with early school leavers having a higher median hourly income than later school leavers. The median hourly earnings of completers not in higher education fell between these two extremes.

Gender differences in weekly incomes were evident. The median weekly earnings of males were greater than those of females. This was the case for each group of school leavers, and for each year. As females were more likely than males to be in part-time work (Table 11), this finding is not surprising. After controlling for the number of hours worked, the gender differences in median earnings declined. For example, in 2000 the weekly median income of males was 28 per cent higher than that of females, but the hourly median income of males was only 5 per cent higher than that of females. In general, among later school leaver and completer groups, gender differences in weekly and hourly earnings were substantially less than among the early school leaver group.

Table 22 Median post-school earnings, by gender and school completion status, 1997-2000

	1997			1998			1999			2000		
	Early leaver	Later leaver	Completers not in higher ed	Early leaver	Later leaver	Completers not in higher ed	Early leaver	Later leaver	Completers not in higher ed	Early leaver	Later leaver	Completers not in higher ed
Weekly income												
Persons	200	200	.	255	225	.	360	304	250	430	400	350
Males	220	202	.	275	240	.	400	330	250	480	402	360
Females	183	188	.	225	190	.	300	280	240	375	365	350
Male:female ratio	1.20	1.07	.	1.22	1.26	.	1.33	1.18	1.04	1.28	1.10	1.03
Hourly earnings												
Persons	5.95	6.16	.	6.84	6.84	.	9.33	8.75	9.00	11.20	10.63	10.75
Males	6.00	6.58	.	6.84	6.82	.	9.50	8.75	8.89	11.32	10.50	10.79
Females	5.79	5.56	.	6.73	7.00	.	8.97	9.09	9.20	10.75	10.94	10.71
Male:female ratio	1.04	1.18	.	1.02	0.97	.	1.06	0.96	0.97	1.05	0.96	1.01

Influences on occupational status and hourly earnings

We now turn to a more detailed examination of the influences on the occupational status and hourly earnings of recent school leavers in full-time employment. The influence of four types of factors are assessed: sociodemographic background; schooling, post-school education and training; and labour market experience (see Figure 16). This model includes the ascribed characteristics and human capital variables included in the model of unemployment tested in the previous chapter. The following human capital variables are also included in the model: currently undertaking a New Apprenticeship; currently enrolled in another post-school qualification; and proportion of time worked since leaving school (an indicator of labour market experience).

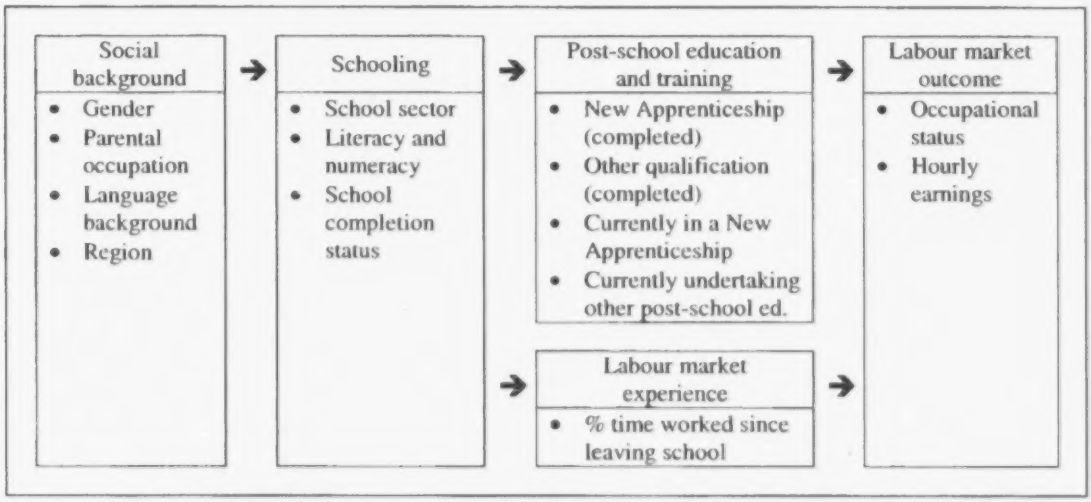

Figure 16 Influences on occupational status and hourly earnings: conceptual framework

We analyse the most recent data on occupational status and earnings; that is, data from late 2000. All analyses are restricted to persons in full-time employment[18], and school completers who entered higher education are excluded from analysis. The mean occupational status of various sociodemographic and educational groups are reported in Table 23, and the median earnings of each of these groups are presented in Table 25. OLS regression is used to assess the independent influences of each of the social background and human capital factors on occupational status and hourly earnings. In the earnings model, the dependent variable is the log of hourly earnings. The results are presented in Table 24 (occupational status) and Table 26 (earnings). Results are reported for the total sample, and separately for males, females, non-completers (see[15]) and completers not in higher education.

These analyses are used to address the following research questions:

- Do different sociodemographic or educational groups attain jobs with differing levels of occupational status (Table 23) and hourly earnings (Table 25)?
- What are the influences on the occupational status (Table 24, Column 1) and hourly earnings (Table 26, Column 1) of recent school leavers?

18 The number of part-time workers not in higher education or other full-time study in this sample is too small to permit a similar analysis for part-time workers.

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- What is the relative importance of social background characteristics and human capital on occupational status (Table 24, Column 1) and hourly earnings (Table 26, Column 1)?
- Are there gender differences in the influences on occupational status (Table 24, Columns 2-3) and hourly earnings (Table 26, Columns 2-3)? Are different forms of human capital more important for males than females?
- Are there differences between non-completers and completers not in higher education, in the influences on occupational status (Table 24, Columns 4-5) and hourly earnings (Table 26, Columns 4-5)? Are different forms of human capital more important for non-completers than completers?

Gender: The results presented in the previous chapter suggested that gender did not influence the odds of being unemployed. However, there were gender differences in the occupational status of jobs obtained by recent school leavers. On average, females obtained higher status jobs than males, reflecting the clustering of females in white collar occupations, and the clustering of males in (lower status) manual occupations (Table 23, Column 1). The influence of gender on occupational status remained statistically significant after controlling for other sociodemographic and human capital factors (Table 24, Column 1). An examination of the standardised regression coefficients suggests that of the factors included in the multivariate model, gender exerted the strongest influence on occupational status.

Among full-time workers, gender also had a significant influence on hourly earnings after controlling for the effects of other sociodemographic and human capital variables, but its effect was in the opposite direction. On average, males received higher hourly earnings than females (Table 26, Column 1).

Parental occupation: Recent school leavers whose parents were in professional or managerial occupations attained jobs with significantly higher occupational status than school leavers whose parents were in semi/unskilled manual occupations (Table 23, Column 1). They also received higher median earnings than other school leavers (Table 25, Column 1). These relationships remained statistically significant after controlling for the influence of other sociodemographic and human capital factors (Table 24, Column 1 & Table 26, Column 1). This suggests that parents in higher status occupations are able to positively influence the occupational and earnings outcomes of their children, either by instilling higher occupational aspirations, or by providing access to networks and providing other assistance in obtaining jobs.

Language background: The occupational status and hourly earnings of recent school leavers from language backgrounds other than English were not significantly different from that of school leavers from English-speaking backgrounds.

Region: The influence of region on both occupational status and hourly earnings was less clear. Young people from metropolitan, regional and rural areas did not display significantly different levels of occupational status (Table 23, Column 1). However, after controlling for other sociodemographic and human capital factors, living in a rural area exerted a negative influence on occupational status, relative to living in a metropolitan area (Table 24, Column 1). This result will be explored in more detail below, when we discuss gender differences in the influences on occupational status.

The median hourly earnings of full-time workers in metropolitan areas was greater than those of full-time workers in regional areas, which were in turn higher than those of workers in rural areas (Table 25, Column 1). However, the influence of living in a non-metropolitan area did not remain statistically significant after controlling for post-school education, training and labour market experience (see Appendix 4, Table 42).

School sector: Overall, persons who had attended Catholic schools obtained higher status occupations and higher hourly earnings than persons who attended government schools (Table 23, Column 1 & Table 25, Column 1). This relationship could not be explained by the other sociodemographic and human capital variables included in the multivariate model (Table 24, Column 1 & Table 26, Column 1).

The occupational status and hourly earnings of persons who had attended independent schools, on the other hand, were not significantly different from that of persons who had attended government schools. However, previous research has indicated that independent school students are more likely than government school students to enter higher education (Marks et al, 2000), and persons in higher education were excluded from this analysis as the majority were still in full-time study at the time of the 2000 interview. It will be necessary to allow more time to elapse, so that cohort members undertaking higher education in the immediate post-school years can enter the labour market, before being able to conclude that having attended an independent school does not influence occupational status and earnings.

Literacy and numeracy achievement in Year 9: Achievement in literacy and numeracy was positively related to both occupational status and hourly earnings in this cohort of recent school leavers. Higher literacy and numeracy levels were associated with the attainment of jobs with higher occupational status (Table 23, Column 1) and higher hourly earnings (Table 25, Column 1). Furthermore, the influence of literacy and numeracy on each of these outcomes remained significant after controlling for sociodemographic and other human capital factors (Table 24, Column 1 & Table 26, Column 1), suggesting that among school leavers who were not in higher education, higher achievers experience greater occupational opportunities.

School completion status: There were differences in the influence of school non-completion on occupational status and earnings. School non-completers obtained significantly lower status jobs than school completers (Table 23, Column 1), but amount of schooling did not exert a significant influence on occupational status, after controlling for sociodemographic background and level of literacy and numeracy (Table 24, Column 1; see also Appendix 4, Table 41).

The amount of time since leaving school was positively related to hourly earnings, after controlling for ascribed characteristics and other forms of human capital. That is, in any given year non-completers reported higher hourly earnings than completers, other things being equal (Table 26, Column 1).

When interpreting these findings, again it must be remembered that this analysis excluded completers in higher education. It will be necessary to wait until these persons enter the labour market before concluding with any degree of certainty about the influence of amount of schooling on occupational status and earnings.

New Apprenticeships and other post-school qualifications: The effects of undertaking a New Apprenticeship on occupational status and earnings were significant but in opposite directions. Persons in New Apprenticeships had higher occupational status, on average, than other recent school leavers, other things being equal (Table 24, Column 1).[19] However, they also reported lower hourly earnings than other school leavers. Of the factors included in the multivariate earnings model, undertaking a New Apprenticeship was the strongest influence (Table 26, Column 1). This is at least in part due to the 'training wage' paid to New Apprentices.

19 Although apprenticeships and traineeships have been merged into New Apprenticeships since 1998, a number of respondents continued to distinguish between apprenticeships and traineeships in their responses to interview questions. Additional analyses showed that both apprenticeships and traineeships were positively related to occupational status.

Persons, who had completed a (non-trade) post-school qualification or who were working towards a qualification at the time of the 2000 interview, had jobs with significantly higher occupational status than others who had not undertaken a post-school qualification (Table 24, Column 1). However, the influence of undertaking such study was not significantly related to their hourly earnings (Table 26, Column 1). It will be necessary to revisit this cohort in future years in order to assess whether education and training undertaken in the initial post-school years confers longer term benefits to earnings.

Labour market experience: Labour market experience was positively related to both occupational status and earnings, after controlling for sociodemographic characteristics and other human capital factors. On average, persons who had spent a larger proportion of time in employment were employed in higher status occupations and received higher hourly earnings, net of other factors in the model (Table 24, Column 1 & Table 26, Column 1).

The relative influence of ascribed characteristics and human capital: Both social background and human capital influenced the occupational status and hourly earnings of this cohort in 2000. There were, however, some differences in the relative influence of each of these sets of characteristics on the two employment outcomes.

Of the influences considered in this chapter, gender exerted the strongest independent influence on occupational status. The effect of other ascribed characteristics on occupational status was small (parental occupation, region and school sector) or not statistically significant (language background). In contrast, the influence of a number of human capital variables (literacy and numeracy, New Apprenticeships, other post-school qualifications, and labour market experience) on occupational status was somewhat stronger (refer to the standardised regression coefficients in Table 24, Column 1).

Current participation in a New Apprenticeship and factors associated with labour market experience (measured indirectly by amount of schooling and per cent of post-school time spent employed) exert a stronger influence than ascribed characteristics on hourly earnings (refer to the standardised regression coefficients in Table 26, Column 1).

Gender differences in the influences on occupational status and earnings: A comparison of the regression coefficients in Columns 2 and 3 of Table 24 permits an assessment of gender differences in the influences on occupational status. As in the case of unemployment discussed in the previous chapter, parental occupational status was a significant influence on the occupational status of males, but not of females; and living in a non-metropolitan area was associated with lower occupational status for females, but not for males.

Of the human capital factors considered, literacy and numeracy levels and labour market experience were equally important for males' and females' occupational status. However, participation in both New Apprenticeships and other post-school qualifications had a stronger effect on occupational status for males than females, suggesting the higher school non-completion rates for males may be partially offset by post-school education and training.

In contrast, there were very few gender differences in the influences on hourly earnings (Table 26, Columns 2-3). In terms of the ascribed characteristics, for both males and females, parental occupational status exerted a similar positive influence on young people's earnings, while language background and region were unrelated to earnings. Having attended a Catholic school was a positive influence on the earnings of males, but it did not significantly influence the earnings of females.

Similarly, there are very few gender differences in the influences of various forms of human capital on the hourly earnings of recent school leavers. Both achievement in literacy and

numeracy, and labour market experience were positively related to the earnings of males and females, while participation in New Apprenticeships was negatively related to the earnings of both groups. However, the amount of schooling completed (possibly acting as a proxy for labour market experience) only exerted a significant influence on the earnings of males; males who had been out of school longer received significantly higher hourly earnings.

Differences between non-completers and completers in the influences on occupational status and earnings: The influence of ascribed characteristics on occupational status differs for non-completers and completers. For example, while gender is related to the occupational status of both groups, its influence is greater among non-completers. The influence of parental occupational status is significant among the non-completer group, but not among the completers. In contrast, completers in rural areas tended to occupy lower status jobs than their metropolitan counterparts, but a similar pattern is not evident among the non-completers.

Turning to educational and training factors, again different influences on occupational status are evident for completers and non-completers. The influence of literacy and numeracy is slightly higher for non-completers. In contrast, the influence of New Apprenticeships, other post-school qualifications and labour market experience on occupational status were stronger for completers, suggesting that human capital formation in the post-school years has higher occupational status returns for school completers than for non-completers.

There are a number of differences between the influences on the hourly earnings of non-completers and completers not in higher education (Table 26, Columns 4-5), and the patterns differ markedly from the occupational status results described above. While males from both groups earned higher incomes on average, parental occupational status, having attended a Catholic school, and literacy and numeracy achievement only exerted significant independent influences on the earnings of completers. The negative influence of undertaking a New Apprenticeship was weaker for non-completers, and the positive influence of labour market experience was greater for non-completers. Overall, our model explained substantially more of the variance in the earnings of completers (20 per cent) than non-completers (only 6 per cent).

Summary

A number of broad themes are evident in the results described in this chapter. First, the continuing influence of ascribed characteristics in the early post-school years, even after the operation of selection processes at previous junctures (that is, the various educational branching points and entry to paid work), was noted. In particular,

- males obtained jobs with lower occupational status but higher hourly earnings than females;
- parental occupational status was weakly related to the occupational status and hourly earnings of recent school leavers; and
- persons who had attended Catholic schools obtained higher status occupations and higher hourly earnings than persons who had attended government schools.

These relationships remained significant after controlling for the influence of education, training and labour market experience. That is, differing levels of human capital within these groups could not fully explain the influence of social background on occupational status and earnings.

Second, even within the first few years since leaving school, before the majority of those who progress to higher education have had a chance to enter the full-time labour market, some differences in the types of jobs obtained by those completers and non-completers in the full-time labour market were apparent. In particular,

- non-completers were more likely to obtain manual work or low status occupations (although these differences did not remain significant after controlling for a range of background and human capital factors); and

- early school leavers reported higher hourly earnings, on average, than school completers who did not enter higher education.

Finally, the importance of a number of other aspects of human capital was also evident. In particular,

- literacy and numeracy levels were positively related to occupational status and earnings;

- New Apprenticeships were associated with higher occupational status but lower earnings (possibly due to the effect of a training wage);

- other post-school qualifications were associated with higher occupational status but were unrelated to hourly earnings; and

- labour force experience (measured by proportion of time employed since leaving school) was positively associated with both occupational status and hourly earnings.

Table 23 Mean occupational status of full-time workers, by socioeconomic and educational group

	Column 1: Persons	Column 2: Male	Column 3: Female	Column 4: Non-completer	Column 5: Completer not in H.E.
Gender					
Female	27.2 (0.3)	.	.	26.8 (0.6)	27.3 (0.4)
Male	23.4 (0.3)	.	.	22.1 (0.4)	24.3 (0.4)
Parental occupational group					
Professional/managerial	26.2 (0.4)	24.9 (0.6)	28.0 (0.5)	24.7 (0.7)	27.0 (0.5)
Clerical/sales/personal service	25.2 (0.7)	23.5 (0.9)	27.4 (1.0)	25.0 (1.2)	25.3 (0.8)
Skilled manual	24.8 (0.5)	23.3 (0.6)	27.3 (0.7)	23.4 (0.7)	25.9 (0.6)
Semi/unskilled manual	24.3 (0.5)	22.1 (0.6)	26.7 (0.7)	22.9 (0.8)	25.1 (0.6)
Language background (home lang)					
English	25.1 (0.2)	23.6 (0.3)	27.2 (0.3)	23.7 (0.4)	25.9 (0.3)
Other	23.5 (1.1)	20.3 (1.6)	28.2 (1.5)	22.2 (2.2)	24.0 (1.3)
Region					
Metropolitan	25.3 (0.3)	23.3 (0.5)	28.2 (0.5)	23.5 (0.6)	26.2 (0.4)
Regional	24.8 (0.4)	23.8 (0.5)	26.4 (0.6)	24.0 (0.6)	25.3 (0.5)
Rural/remote	24.3 (0.4)	23.1 (0.6)	25.9 (0.6)	23.4 (0.7)	24.9 (0.5)
School sector					
Government	24.5 (0.3)	22.9 (0.3)	26.8 (0.4)	23.1 (0.4)	25.5 (0.3)
Catholic	26.3 (0.6)	24.8 (0.8)	28.1 (0.9)	25.9 (1.2)	26.5 (0.7)
Independent	26.2 (0.8)	24.6 (0.9)	28.8 (1.2)	27.0 (1.2)	25.9 (0.9)
Literacy & numeracy (Year 9)					
Very high	27.0 (0.7)	26.3 (1.0)	28.2 (1.0)	25.8 (1.2)	27.4 (0.9)
High	26.1 (0.4)	24.9 (0.5)	27.7 (0.5)	25.7 (0.7)	26.3 (0.4)
Low	24.8 (0.4)	22.9 (0.5)	27.3 (0.6)	23.5 (0.6)	25.6 (0.5)
Very low	23.2 (0.5)	21.4 (0.6)	25.9 (0.7)	21.9 (0.6)	24.2 (0.7)
School completion status					
Early leaver	23.3 (0.6)	21.9 (0.7)	26.6 (1.1)	23.3 (0.6)	.
Later leaver	23.9 (0.5)	22.3 (0.5)	26.9 (0.8)	23.9 (0.5)	.
Completer not in higher education	25.7 (0.3)	24.3 (0.4)	27.3 (0.4)	.	25.7 (0.3)
Completed New Apprenticeship					
Yes	24.0 (0.8)	22.8 (1.0)	26.7 (1.0)	22.5 (0.9)	27.3 (1.3)
No	25.0 (0.2)	23.4 (0.3)	27.2 (0.3)	23.9 (0.4)	25.6 (0.3)
Completed other post-school qual					
Yes	26.2 (0.4)	23.9 (0.6)	28.2 (0.5)	25.0 (0.7)	27.1 (0.5)
No	24.4 (0.3)	23.2 (0.3)	26.5 (0.4)	23.0 (0.4)	25.2 (0.3)
In New Apprenticeship					
Yes	25.7 (0.4)	25.3 (0.4)	27.0 (0.8)	24.4 (0.5)	26.7 (0.5)
No	24.6 (0.3)	21.9 (0.4)	27.2 (0.4)	23.2 (0.5)	25.3 (0.3)
In other post-school qual					
Yes	30.5 (1.2)	32.4 (2.4)	29.3 (1.3)	25.1 (1.8)	31.8 (1.4)
No	24.6 (0.2)	23.0 (0.3)	27.0 (0.3)	23.6 (0.4)	25.2 (0.3)
% of post-school time employed					
< 50 %	22.1 (0.7)	19.8 (1.0)	24.9 (1.0)	21.7 (1.6)	22.3 (0.8)
50 – 74 %	23.9 (0.6)	21.4 (0.8)	27.3 (0.8)	22.8 (1.0)	24.8 (0.8)
75 – 99 %	25.0 (0.3)	23.7 (0.4)	27.1 (0.5)	22.8 (0.6)	26.1 (0.4)
100 %	26.1 (0.4)	24.8 (0.5)	27.7 (0.6)	25.4 (0.6)	26.6 (0.5)

Table 24 Influences on occupational status in 2000, non-completers and completers who had not entered higher education (unstandardised and standardised regression coefficients)

	Column 1: Persons	Column 2: Male	Column 3: Female	Column 4 Non-completer	Column 5: Completer not in H.E.
PANEL 1: Unstandardised					
Intercept	2.06***	1.48***	2.34***	2.14***	2.12***
Gender					
Female	.	.	.	.	.
Male	-0.40***	.	.	-0.52***	-0.33***
Parental occupational status (ANU3/10)	0.03**	0.06***	0.00	0.04*	0.02
Language background (home language)					
English	.	.	.	.	.
Other	0.02	0.03	0.02	0.01	0.01
Region					
Metropolitan	.	.	.	.	.
Regional	-0.03	0.06	-0.17+	0.11	-0.11
Rural/remote	-0.15*	-0.03	-0.27***	-0.02	-0.23**
School sector					
Government	.	.	.	.	.
Catholic	0.14*	0.12	0.16+	0.22+	0.10
Independent	0.10	0.09	0.15	0.26	0.02
Literacy & numeracy (Year 9)	0.13***	0.14***	0.12**	0.16***	0.12***
School completion status					
Early leaver	.	.	.	.	.
Later leaver	-0.02	-0.01	-0.01	.	.
Completer not in higher education	0.08	0.15+	-0.03	.	.
Completed New Apprenticeship	0.00	0.06	-0.13	-0.07	0.21
Completed other post-school qualification	0.14**	0.08	0.18*	0.10	0.15*
In New Apprenticeship	0.25***	0.36***	0.05	0.20*	0.28***
In other post-school qualification	0.56***	1.12***	0.21+	0.02	0.68***
% post-school time spent employed	0.01***	0.004**	0.01***	0.004*	0.01***
PANEL 2: Standardised					
Gender					
Female	.	.	.	.	.
Male	-0.16	.	.	-0.21	-0.14
Parental occupational status (ANU3/10)	0.05	0.10	0.00	0.08	0.04
Language background (home language)					
English	.	.	.	.	.
Other	0.00	0.01	0.00	0.00	0.00
Region					
Metropolitan	.	.	.	.	.
Regional	-0.01	0.02	-0.06	0.04	-0.04
Rural/remote	-0.05	-0.01	-0.10	-0.01	-0.08
School sector					
Government	.	.	.	.	.
Catholic	0.04	0.04	0.05	0.06	0.03
Independent	0.02	0.02	0.03	0.05	0.00
Literacy & numeracy (Year 9)	0.10	0.10	0.09	0.12	0.09
School completion status					
Early leaver	.	.	.	.	.
Later leaver	-0.01	-0.00	-0.00	.	.
Completer not in higher education	0.03	0.06	-0.01	.	.
Completed New Apprenticeship	0.00	0.01	-0.03	-0.02	0.03
Completed other post-school qualification	0.05	0.03	0.07	0.04	0.06
In New Apprenticeship	0.10	0.15	0.01	0.08	0.11
In other post-school qualification	0.10	0.17	0.05	0.00	0.14
% post-school time spent employed	0.09	0.08	0.10	0.07	0.11
Adj R^2	0.07	0.08	0.03	0.07	0.07

$^{+}$ 0.10>P>0.05; * 0.05>P>0.01; ** 0.01>P>0.001; *** P<0.001

Table 25 Median hourly earnings of recent school leavers in full-time work at the time of interview in 2000

	Col. 1: Persons	Col. 2: Males	Col. 3: Females	Col. 4: Non-completers	Col. 5: Completer not in H.E.
Gender					
Female	10.53	.	.	10.53	10.53
Male	10.71	.	.	11.00	10.53
Parental occupational group					
Professional/managerial	10.83	11.00	10.62	11.11	10.63
Clerical/sales/personal service	10.00	10.00	10.22	10.26	10.00
Skilled manual	10.49	10.63	10.00	10.83	10.00
Semi/unskilled manual	10.52	10.39	10.53	10.63	10.25
Language background (home lang)					
English	10.53	10.67	10.53	10.90	10.49
Other	10.84	11.11	10.84	10.08	11.25
Region					
Metropolitan	10.75	11.05	10.53	11.00	10.63
Regional	10.53	10.42	10.81	10.53	10.53
Rural/remote	10.10	10.42	10.00	10.75	9.93
School sector					
Government	10.53	10.53	10.53	10.67	10.43
Catholic	11.05	11.25	10.63	11.43	10.93
Independent	10.37	11.25	10.40	10.87	10.83
Literacy & numeracy (Year 9)					
Very high	10.80	11.00	10.80	10.53	10.89
High	10.87	11.05	10.71	11.11	10.75
Low	10.43	10.53	10.14	10.87	10.00
Very low	10.53	10.53	10.53	10.45	10.53
School sector					
Early leaver	11.05	11.32	10.26	11.05	.
Later leaver	10.53	10.45	10.67	10.53	.
Completer not in higher education	10.53	10.53	10.53	.	10.53
Completed New Apprenticeship					
Yes	10.00	10.26	9.87	10.53	9.16
No	10.56	10.75	10.53	10.87	10.53
Completed other post-school qual					
Yes	10.81	11.25	10.50	10.91	10.75
No	10.53	10.53	10.53	10.75	10.49
In New Apprenticeship					
Yes	8.93	9.00	8.33	10.00	8.00
No	11.31	12.00	10.81	11.56	11.25
In other post-school qual					
Yes	11.11	12.50	10.71	10.50	11.11
No	10.53	10.53	10.53	10.84	10.43
% post-school time spent employed					
< 50 %	10.00	10.00	10.00	10.00	10.50
50 – 74 %	10.53	10.53	10.50	10.53	10.28
75 – 99 %	10.50	10.53	10.50	10.53	10.50
100 %	10.90	11.05	10.67	11.25	10.53

Table 26 Influences on hourly earnings, recent school-leavers in full-time employment in 2000 (unstandardised and standardised regression coefficients)

	Col. 1: Persons	Col. 2: Males	Col. 3: Females	Col. 4: Non-completers	Col. 5: Completers not in HE
PANEL 1: Unstandardised					
Intercept	2.33***	2.39***	2.29***	2.17***	2.25***
Gender					
Female	.	.	.	.	.
Male	0.06***	.	.	0.07*	0.05**
Parental occupational status (ANU3/10)	0.01**	0.01*	0.01†	0.01	0.01**
Language background (home language)					
English	.	.	.	.	.
Other	0.03	0.05	0.02	0.03	0.03
Region					
Metropolitan	.	.	.	.	.
Regional	-0.01	-0.03	0.04	-0.05	0.02
Rural/remote	-0.02	-0.04	0.01	-0.03	-0.00
School sector					
Government	.	.	.	.	.
Catholic	0.05*	0.07*	0.02	0.06	0.05*
Independent	0.00	0.01	0.02	-0.01	0.01
Literacy & numeracy (Year 9)	0.03***	0.02*	0.03**	0.00	0.04***
School completion status					
Early leaver	.	.	.	.	.
Later leaver	-0.04	-0.06†	0.03	.	.
Completer not in higher education	-0.13***	-0.18***	-0.03	.	.
Completed New Apprenticeship	-0.06*	-0.05	-0.10*	-0.03	0.07†
Completed other post-school qualification	0.00	0.02	-0.00	-0.03	0.02
In New Apprenticeship	-0.27***	-0.29***	-0.21***	-0.18***	-0.33***
In other post-school qualification	-0.01	0.07	-0.06†	-0.04	-0.01
Per cent of post-school time spent employed	0.002***	0.002***	0.001**	0.003***	0.001***
PANEL 2: Standardised					
Gender					
Female	.	.	.	.	.
Male	0.08	.	.	0.08	0.07
Parental occupational status (ANU3/10)	0.06	0.06	0.06	0.06	0.06
Language background (home language)					
English	.	.	.	.	.
Other	0.02	0.03	0.02	0.01	0.02
Region					
Metropolitan	.	.	.	.	.
Regional	-0.01	-0.04	0.05	-0.06	0.03
Rural/remote	-0.02	-0.04	0.01	-0.03	-0.01
School sector					
Government	.	.	.	.	.
Catholic	0.05	0.06	0.02	0.05	0.06
Independent	0.00	-0.01	0.02	-0.01	0.01
Literacy & numeracy (Year 9)	0.07	0.06	0.09	0.01	0.11
School completion status					
Early leaver	.	.	.	.	.
Later leaver	-0.04	-0.07	0.04	.	.
Completer not in higher education	-0.18	-0.23	-0.06	.	.
Completed New Apprenticeship	-0.04	-0.04	-0.08	-0.03	-0.04
Completed other post-school qualification	0.00	0.02	-0.01	-0.04	0.03
In New Apprenticeship	-0.35	-0.36	-0.27	-0.23	-0.43
In other post-school qualification	-0.01	0.03	-0.06	-0.02	-0.01
Per cent of post-school time spent employed	0.11	0.12	0.09	0.15	0.08
Adj R^2	0.14	0.18	0.09	0.06	0.20

†0.10>P>0.05; *0.05>P>0.01; **0.01>P>0.001; ***P<0.001

9. EXPERIENCES OF EMPLOYMENT: JOB STABILITY AND WORK SATISFACTION

In the final substantive chapter of this report, we provide a further discussion of the quality of jobs obtained by young people. In the previous chapter, we focused on objective measures of job quality; namely occupational group, occupational status and earnings. In this chapter, we focus on job stability and young people's subjective assessments of their jobs in order to develop a further understanding of young people's early experiences in the labour market.

Job stability

A recurrent concern in the literature relating to school non-completers is that they are at greater risk of moving in and out of jobs; that is, they have difficulty in obtaining relatively stable jobs. In this section we describe movement between jobs (see Chapter 6 for an analysis of movement in and out of employment). In 1998, employed school leavers who had also reported being in employment at the time of their 1997 interview were asked whether they were still in the same job. Similarly, in 1999 and 2000 employed school leavers were asked if they had changed jobs in the preceding 12 months. The results are reported in Table 27.

Table 27 Percentage of employed young people who were in the same job as in the previous year[a]

	1998			1999			2000		
	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed
Persons	66	49	.	67	54	.	67	63	57
Males	70	48	.	74	54	.	67	68	61
Females	58	51	.	53	55	.	67	55	53

a. Analysis restricted to employed persons who had also been in post-school employment in the previous year.

While there is evidence of a high degree of job mobility (or instability) among each type of school leaver, the amount of job mobility decreased the longer these young people were in the labour market. For example, early school leavers (the group that had been in the labour market the longest) were more likely than later school leavers to report being in the same job as in the previous year. In 1998, 66 per cent of employed early school leavers, compared with 49 per cent of employed later school leavers reported being in the same job as in the previous year. This gap diminished over time, with the proportion of employed later school leavers in the same job as in the previous year rising to 63 per cent by 2000. As completers had only been out of school for two years by 2000, the first job stability data for this group was reported in 2000. Completers not in higher education displayed lower job stability than non-completers, again possibly reflecting length of time spent in the labour market.

In each year, and for each type of school leaver, males exhibited similar or higher levels of job stability than their female counterparts. For example, in 2000, among the employed early leavers, males and females reported similar levels of job stability (67 per cent), but among employed later leavers and completers not in higher education, a gender gap was evident. Just under 70 per cent of employed male later leavers, compared with 55 per cent of female later leavers, were in the same job as in the previous year. Similarly, 61 per cent of employed male completers, compared with 53 per cent of female completers, reported that they had been in their 2000 job 12 months

previously. This suggests that teenage girls in employment may face more difficulties than males in obtaining the types of stable jobs that are necessary for successful career paths. Higher levels of participation in apprenticeships by males would perhaps be one explanation for their greater job stability.

However, job mobility should not necessarily be viewed as a completely negative experience for recent school leavers. For many, the immediate post-school period represents a 'settling in' period, where they move between jobs in an attempt to find the types of work or careers they most like. For example, the most common reasons given by non-completers for changing jobs between 1999 and 2000 were either to get a better job (31 per cent) or because they were not satisfied with their job (37 per cent). Considerably smaller proportions of the non-completers who changed jobs indicated that it was because they had been laid off (8 per cent) or that it was a temporary job (9 per cent).

Young people's views about their jobs and careers

Up until now we have examined 'objective' measures of job quality, such as occupational status, earnings and job stability. General societal conceptions of what is considered a 'good job' are implicit in these analyses (for example, high status professional or managerial jobs, high salaries, and long-term employment prospects). However, it is important to also consider the views of young people themselves. In the final part of this chapter we describe the employed school-leavers own views about their jobs and careers.

In each annual interview between 1997 and 2000, employed persons who had left school were asked 'is the job you have now the type of job you would like as a career?' Table 28 shows that over half of the non-completers viewed their present job as a career job, and that this percentage was rising over time. A smaller proportion of completers not in higher education regarded their current job as a career job, but this proportion was also increasing over time, from 36 per cent in 1999 to 44 per cent in 2000. Males were more likely than females to perceive themselves to be in a career job. This held for early school leavers, later leavers, and completers not entering higher education, and for each time point. The greater uptake of apprenticeships by males may provide a partial explanation for this gender difference.

The increasing proportions of school leavers employed in the types of jobs they viewed as career jobs, and the diminishing differences between early leavers, later leavers and completers not in higher education, adds support to the idea that job mobility is not necessarily a negative experience, and that job stability increases with increasing time in the labour market, as young people find and move into the types of jobs they would like as a career.

Levels of work satisfaction were also encouraging. Employed school-leavers were asked to indicate their satisfaction with the following aspects of their work:

- the kind of work they did;
- the people they worked with;
- their immediate boss/supervisor;
- their pay;
- opportunities for training;
- tasks assigned;
- recognition for tasks well done; and
- opportunities for promotion.

Work satisfaction is measured by the average (mean) of the responses across these eight items. A score of 1 indicates being very dissatisfied, and a score of 4 indicates being very satisfied. The results are reported in Table 29. Overall, school-leavers in paid employment reported being satisfied with their jobs (mean scores of approximately 3). Levels of work satisfaction did not change substantially over time.[20] Nor were there any substantial differences in the work satisfaction of early school leavers, later leavers and completers not in higher education, nor in the work satisfaction of males and females, despite the differences reported above in terms of both job mobility and their assessments of their current jobs being career jobs.

Summary

This chapter has focused on issues relating to job mobility, the reasons young people change jobs, and their satisfaction with their jobs and careers. A common theme in the literature on young people is that they are at risk, in their early post-school years, of milling and churning between a series of jobs that lack security and that this may have long-term consequences. Our findings confirm that there is considerable movement between jobs by young people who do not enter higher education. However, a substantial amount of this movement is initiated for positive reasons such as wanting to get a better job, rather than for negative reasons associated with job insecurity (such as having a temporary job or being laid off). As the length of time since leaving school increases, there is a decline in the job mobility of young people, and a corresponding increase in the proportion who report being in the type of job they would like as a career. This suggests that for a number of young people, the early years in the labour market are exploratory in nature, and we should not assume that all job mobility among young people is a negative experience. Our results also show relatively high levels of satisfaction among recent school leavers with various aspects of their work.

However, these findings should not be taken as grounds for complacency. In every year since leaving school a large minority of employed young people experienced a change in job, sometimes for quite negative reasons. By 2000 the completers in the study cohort who had not entered higher education were still becoming established in the world of work. But among non-completers (who had been out of school longer), between 37 and 46 per cent of those who were employed had not attained the type of jobs they would like as a career. Teenage girls are of particular concern, as they experience higher levels of job mobility and are less likely to be in the types of jobs they would like as a career. Girls' relatively low uptake of New Apprenticeships may be a partial explanation for these gender differences.

20 There was a statistically significant decline in the work satisfaction of non-completers between 1997 and 2000. Mean work satisfaction declined by 0.13 among early school leavers, and by 0.11 among later leavers. However, work satisfaction in this study was measured on a scale of 1 (very dissatisfied) to 4 (very satisfied), and these declines are too small to be of substantive significance.

Table 28 Percentage of employed school leavers whose job was the type they would like as a career, 1997-2000

	1997[a]			1998[b]			1999			2000		
	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed
Persons	61	46	.	64	50	.	61	51	36	63	54	44
Males	69	51	.	71	58	.	66	58	43	69	62	47
Females	47	39	.	51	37	.	53	40	30	51	43	41

a. Analysis restricted to employed persons who had left school by the time of the 1997 interview

b. Analysis restricted to employed persons who had left school by the time of the 1998 interview

Table 29 Work satisfaction of employed school leavers, 1997-2000 (means and standard errors)

	1997[a]			1998[b]			1999			2000		
	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed	Early leavers	Later leavers	Completers not in higher ed
Persons	3.35 (0.02)	3.31 (0.03)	.	3.27 (0.02)	3.25 (0.02)	.	3.23 (0.02)	3.23 (0.02)	3.21 (0.01)	3.22 (0.02)	3.20 (0.02)	3.21 (0.01)
Males	3.36 (0.03)	3.38 (0.04)	.	3.29 (0.03)	3.26 (0.03)	.	3.21 (0.03)	3.23 (0.02)	3.22 (0.01)	3.21 (0.03)	3.20 (0.02)	3.19 (0.01)
Females	3.34 (0.04)	3.21 (0.04)	.	3.21 (0.04)	3.24 (0.03)	.	3.26 (0.04)	3.23 (0.03)	3.20 (0.01)	3.24 (0.04)	3.19 (0.03)	3.22 (0.01)

a. Analysis restricted to employed persons who had left school by the time of the 1997 interview

b. Analysis restricted to employed persons who had left school by the time of the 1998 interview

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10. SUMMARY AND DISCUSSION

Strategies to increase school retention and facilitate smooth transitions from school to work have been the subject of much policy interest in recent years. The Finn report proposed the following national target: 'By the year 2001, 95 per cent of all 19-year-olds should have completed Year 12 or an initial post-school qualification or be participating in education and training' (Australian Education Council Review Committee, 1991:x). More recently, the Adelaide Declaration on National Goals for Schooling in the Twenty-first Century established a new goal relating to student participation, retention and completion/attainment. Goal 3.6 states that schooling should be socially just so that:

> all students have access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent and that provides clear and recognised pathways to employment and further education and training (MCEETYA, 1999).

This report has assessed whether particular groups are at risk of not completing school. It has described the post-school activities of non-completers (including their participation in vocational education and training and employment), and examined whether a range of labour market outcomes are associated with school non-completion, post-secondary education and training, labour market experience and social background. Our research is based upon a national sample of young people who were in Year 9 in 1995, and supplemented by data on previous cohorts of teenagers. The post-school activities of the 1995 Year 9 cohort were followed until late 2000, when the majority of cohort members were 19 years of age. These data contain both positive and negative messages for those concerned about the well being of young people in Australia today.

School non-completers: who are they and why do they leave?

The same sociodemographic factors that influenced school non-completion in the early 1980s were still in operation by the late 1990s. Young people who were male, from socioeconomically disadvantaged families, indigenous Australians, had Australian-born parents, from non-metropolitan areas, and from government schools displayed higher school non-completion rates throughout the past two decades.

The strength of the association between some of these characteristics and school non-completion did change, however. In some regards, things became more equitable. For example, the influence of factors such as socioeconomic background (measured by parental occupation and parental education) and school sector declined. Marks et al (2000), using other data sources, reached a similar conclusion. In contrast, some differences became greater over time. In particular, the representation among non-completers of young people with Australian-born parents and those living in non-metropolitan areas increased.

Overall, however, by the mid to late 1990s, sociodemographic characteristics such as these did not explain a large amount of the variance in school non-completion, and their net effects were relatively weak. Literacy and numeracy skills in middle schooling exerted a stronger influence on subsequent school non-completion throughout the period under consideration. Furthermore, the influence of literacy and numeracy was stronger for early school leaving than for later school leaving. Not only are low achievers more likely to leave school early, they are among the first to do so.

Another way of examining the influences on school non-completion is to ask young people directly. These subjective judgements provide a greater understanding of the influences on school leaving. The majority of non-completers reported that they left school for positive, work-related

reasons such as wanting to get a job or apprenticeship. This confirms the findings of previous quantitative studies.

For just under a third of non-completers in the study sample (or 6 per cent of the total sample), however, the main reason given for leaving school was related to school or their performance at school. This suggests that while school curricula have become more broad-based in recent years in order to cater for the interests and needs of a broader range of young people, there is still a small group whose dissatisfaction with school life or difficulty in coping with school work prompts them to leave early.

The post-school activities of non-completers

The second half of this report described the early post-school education, training and labour market activities of recent school leavers (up to approximately age 19). Disengagement from school is not the same as disengagement from education, as evidenced by the level of participation by non-completers in post-school education and training. At the first interview since leaving school, around half of the non-completers were engaged in some form of education or training.

As already indicated, the most common reason given by non-completers for leaving school was to gain a job or apprenticeship, and the majority (67 per cent) of non-completers from the 1995 Year 9 cohort were indeed in full-time employment (including apprenticeships) in late 2000. Of the employed non-completers, most displayed high levels of work satisfaction and over half were in the type of job they would like as a career. Job mobility, while high, was mostly in order to obtain better jobs rather than through being laid off or reaching the end of temporary work.

Part-time work that is not coupled with full-time study is a relatively uncommon activity among non-completers. For example in late 2000, only 7 per cent of non-completers were in part-time work but not studying. Even fewer combined part-time work with part-time study. The majority of non-completers in part-time work expressed a preference for full-time work, and our results suggest that part-time work is often a stepping-stone to full-time work.

About half of the non-completers who entered full-time work immediately or soon after leaving school combined employment with education or training. Coupling full-time work with education and training provides a means of improving the skills base of non-completers who enter the labour market immediately or soon after leaving school. Only 5 per cent of non-completers who combined full-time work with education or training in 1999 had moved into marginal labour market activities such as part-time work, unemployment, or non-participation in the labour force by 2000. In contrast, 9 per cent of non-completers who had been in full-time work without study or training were in marginal activities in the subsequent year. Apprenticeships are a particularly valuable form of training for non-completers and satisfy Goal 3.6 of the Adelaide Declaration. The differential effects of various forms of post-secondary education and training on unemployment and other labour market outcomes are described later in this chapter.

The consequences of school non-completion

Once the post-school experiences of non-completers are compared with those who completed Year 12, the picture becomes less positive. Non-completers are less likely than completers to engage in post-secondary education and training. There are also differences in the types of education and training undertaken by non-completers and completers. Apprenticeships form the most common post-school education and training activity for non-completers, while completers are concentrated in courses leading to bachelor's degrees. The different levels of participation, and different types of education and training undertaken by completers and non-completers will influence their future labour market opportunities. For example, research on the adult labour

force shows that degree graduates are less likely to become unemployed, and are more likely to obtain higher status, higher income occupations (Borland, 1997; Marks & Fleming, 1998b).

The majority of the members of the 1995 Year 9 cohort who had entered higher education were still in full-time study at the time of data collection in late 2000, so all comparisons of labour market outcomes presented in this report were between non-completers and the subset of completers who did not enter higher education in the first two years after leaving school. Even so, by late 2000 when the majority of the sample was 19 years of age, some differences in the labour market activities of non-completers and completers not in higher education were apparent.

In some regards, during the late teenage years, young people who left school before Year 11 experienced better outcomes than later school leavers and school completers. Early school leavers were more likely than later school leavers to be in full-time employment, who in turn were more likely than school completers outside higher education to have secured full-time employment. After controlling for the influence of social background and educational factors, early school leavers also had the lowest risk of being consistently engaged in marginal activities. Among those in employment in 2000, compared with completers, non-completers received higher hourly earnings, displayed greater job stability, and were more likely to report being in the type of job they would like as a career. These differences favouring non-completers may be a reflection of the amount of time spent in the labour market, and may not persist as the cohort ages and the school completers become more established in the labour market.

There is other evidence that suggests non-completers experienced less successful transitions than completers. Male non-completers were more likely to be unemployed, and female non-completers were more likely to be outside the labour force (and not studying), than were completers who had not undertaken higher education. Non-completers were slightly less likely than completers to report being in full-time education or work in each post-school year. In one other regard, the early labour market outcomes of non-completers and completers were similar. For those who entered full-time work, the influence of school completion on occupational status was not significant, after differences in social backgrounds and other educational characteristics were taken into account. Taken together, these results indicate that at least during the early post-school years, school non-completers are not unequivocally better or worse off than school completers who do not undertake higher education. Further analysis at a later time point may reveal different or more substantial differences between the labour market activities of non-completers and completers.

Other influences on educational, training and labour market outcomes

Achievement in literacy and numeracy in middle schooling was an important influence on school non-completion, and among those who left school early, it continued to be a relatively strong influence for a range of post-school outcomes. Non-completers with lower literacy and numeracy levels were more likely to be unemployed and less likely to be in relatively high status occupations. Literacy and numeracy achievement were also related to the labour market outcomes of completers not in higher education. Those with lower literacy and numeracy skills had higher unemployment rates, lower occupational status and lower hourly earnings. Of the factors examined in this report, literacy and numeracy achievement were among the strongest influences on both schooling and many labour market outcomes. Those with weak literacy and numeracy skills are disadvantaged not just in terms of staying on to complete school, but also in terms of post-school outcomes. Given a context where the labour market increasingly favours skilled workers, those with low literacy and numeracy skills are likely to continue to be at a disadvantage.

The influence on labour market outcomes of post-secondary education, training and labour market experience varies, depending on the labour market outcome under consideration. Taking

unemployment first, school non-completers who had subsequently completed apprenticeships were less likely to be unemployed, while those who had completed traineeships were more likely to be unemployed, and those who had completed other qualifications did not experience significantly different unemployment rates in late 2000. For completers outside of higher education, the completion of apprenticeships and traineeships did not significantly influence unemployment, and those who had completed other qualifications were more likely to be unemployed.

Turning to the influences on occupational status, for both non-completers and completers, labour market experience and currently undertaking a New Apprenticeship (either an apprenticeship or traineeship) were associated with higher status jobs. Current study towards or the completion of other qualifications was positively related to the occupational status of completers but not of non-completers. In terms of the earnings of both completers and non-completers, currently undertaking a New Apprenticeship was associated with lower incomes (due to the 'training wage'), the completion of or current study towards other qualifications was not associated with earnings, and labour market experience was positively associated with earnings.

While the majority of both males and females engage in full-time education or work in the post-school years, some gender differences are evident. Males were more likely to consistently report being engaged in full-time education or work activities in the post-school years, while females were more likely than males to have spent some or all of their time in marginal activities such as part-time work or outside the labour force, and to remain in such activities by approximately age 19. These gender differences are slightly more marked among non-completers. Such findings are of concern, as young people without educational qualifications or labour market experience may be disadvantaged if they attempt to enter the labour market at a later date.

For those in the labour market, gender differences in unemployment rates were not evident by age 19 among either non-completers or completers not in higher education. Turning to the type of work obtained, males were concentrated in manual occupations, while females were concentrated in higher status white collar occupations. These gender differences were especially pronounced for non-completers. In terms of income, job stability, and being in the type of job they would like as a career, however, males fared better than females. Apprenticeships, which remain male-dominated, may partially contribute to the greater job stability and career satisfaction of male non-completers. While female non-completers are more likely to be in white collar jobs, these jobs may not be providing the same opportunities and rewards as some of the lower status blue collar jobs filled by male non-completers.

These findings show that in some regards teenage girls experience superior labour market outcomes, while in other regards teenage boys do better. On balance, however, the evidence presented in this report suggests that females, especially female non-completers, face greater difficulties than males in the early post-school years.

The continuing influence of parental socioeconomic characteristics was another theme of this report. Parental socioeconomic status (SES) was weakly associated with various labour market outcomes, suggesting that higher status families are better placed to assist their children find employment. Non-completers from high SES families were less likely to be unemployed, and of those who were employed, were more likely to be in higher status occupations. Completers outside the higher education sector who were from high SES families were also less likely to be unemployed, and of those who were employed, were more likely to receive higher hourly earnings. Interestingly, these effects of SES on young people's labour market outcomes applied to males but not to females.

School sector, language background, and living in a non-metropolitan area also exerted small influences in the post-school years. These effects were different for males and females. Boys

from Catholic schools had higher incomes than boys from government schools, even after controlling for the amount of schooling undertaken. Boys from language backgrounds other than English were less likely than boys from English-speaking backgrounds to become non-completers, and more likely to enter higher education. However, of the boys who did not enter higher education, those from language backgrounds other than English were more likely to be unemployed. For girls, a different set of social background influences was evident in the post-school years. Compared with girls from metropolitan areas, girls from regional areas were more likely to report being in marginal activities in each post-school year, girls in regional and rural areas experienced higher unemployment, and girls in rural areas gained lower status occupations. These findings confirm the common belief that there are fewer opportunities for teenage girls in non-metropolitan areas.

Overall, young people face a number of branching points or transitions in their mid-to-late teens: leaving school at the end of the compulsory years of schooling versus participating in senior secondary school, whether to stay on to complete Year 12 or not, whether to engage post-secondary education or training, and attempts to enter the labour market and gain employment, to name but a few. At each of these branching points, processes of selection occur, and the nature of early transitions can influence the ease with which young people are able to navigate subsequent branching points. This report has demonstrated the continuing importance of literacy and numeracy skills for both educational and labour market outcomes. Human capital development during the teenage years, including the completion of Year 12, participation in post-school education and training and labour market experience, also influences the labour market outcomes of recent school leavers. Social background factors have small ongoing effects.

Problems experienced by school non-completers

It is often suggested that school non-completers have very poor labour market outcomes, with a substantial proportion 'milling and churning' between various marginal activities such as part-time work, unemployment, and being outside the labour market. However, the proportion of recent non-completers experiencing problematic transitions is smaller than is commonly believed. In the study sample of persons who left school in the mid to late 1990s, approximately 9 per cent of school non-completers reported being in marginal activities at the time of each post-school annual interview. Other non-completers were able to use part-time work as a stepping-stone to full-time employment. The majority of non-completers had gained full-time work by age 19, and while movement between jobs was high, much of this job mobility was initiated for positive reasons.

It needs to be remembered, however, that demand for the types of jobs commonly filled by non-completers is highly sensitive to fluctuations in the economy. The study cohort entered the labour market at a time of relatively low unemployment. For non-completers entering the labour market in times of past economic downturns, the proportion experiencing problematic transitions has been considerably greater, as was the case for non-completers in the 1980s and early 1990s.

Policy implications

Early interventions aimed at improving the literacy and numeracy skills of all young people require ongoing attention. Young people who have attained high literacy and numeracy levels by Year 9 are more likely to complete secondary school, and even if they do not complete school, they are more likely to experience positive labour market outcomes in the early post-school years. Labour market demand for literacy and numeracy skills is increasing due to factors such as technological change and growth in white collar employment. Young people who are not equipped with these skills will face increasing disadvantage.

The report has shown that in the teenage years, 9 per cent of both non-completers and completers not in higher education remained in marginal activities such as part-time work, or unemployment, or were not in the labour force and not studying. As these initial difficulties have ongoing implications for their labour market prospects, there is a need to identify and provide intensive assistance for this subgroup.

The results provide some support for current policies aimed at maximising the number of young people completing Year 12 or its vocational equivalent. While this report has shown that there are no clear and consistent differences between completers and non-completers across a range of labour market outcomes, there are differences in terms of gaining employment. Male non-completers who do not undertake an apprenticeship are more likely than completers to be unemployed, whereas male non-completers who undertake apprenticeships experience a smoother transition into employment. On the other hand, not all education and training pathways yield positive labour market outcomes for school non-completers. Traineeships are associated with higher unemployment, and other non-degree study is unrelated to unemployment among school non-completers. This highlights the necessity of ensuring not just that alternative education and training programs are provided, but that these programs are structured so as to assist in the transition into stable employment.

When designing alternative education and training pathways, the needs of female non-completers should also be addressed. Female non-completers are less likely than males to undertake post-secondary education and training. Furthermore, while apprenticeships are facilitating a relatively smooth transition into employment for male non-completers, the types of courses and programs that are commonly undertaken by female non-completers are not yielding similar benefits. As this report has shown, more female non-completers than male non-completers undertake non-apprenticeship TAFE courses, but participation in these courses is not associated with decreased unemployment for non-completers.

The final issue is one of equity. The decision to leave school early may be at least partially based upon an awareness of alternative training and labour market opportunities. Some sociodemographic groups, however, experience ongoing disadvantage. Young people from low socioeconomic backgrounds, government schools and non-metropolitan areas have an increased risk of school non-completion, and once out of school, they tend to experience poorer labour market outcomes. It is important to ensure that relevant alternative educational and training pathways are available to all groups of young people. Additionally, access to high quality careers information and advice will ensure that young people and their families are aware of the different pathways available, and are able to make informed choices.

REFERENCES

Australian Bureau of Statistics (1984-2002). *Schools Australia*. Cat no 4221.0. Canberra: Author.

Australian Bureau of Statistics (1993-2000). *Labour force Australia*. Cat no 6203.0.0. Canberra: Author.

Australian Bureau of Statistics (1997). *ASCO. Australian Standard Classification of Occupations, Second Edition*. Cat no 1220.0. Canberra: Author.

Australian Bureau of Statistics (2001). *Australian social trends*. Cat no 4221.0. Canberra: Author.

Australian Bureau of Statistics (2002). *Education and training indicators*. Cat no 4230.0. Canberra: Author.

Australian Education Council Review Committee (1991). *Young people's participation in post-compulsory education and training*. Canberra: Australian Government Publishing Service.

Ball, K. & Lamb, S. (2001). *Participation and achievement in VET of non-completers of school*. LSAY Research Report No 20. Melbourne: ACER.

Batten, M. & Russell, J. (1995). *Students at risk: a review of Australian literature 1980 to 1984*. Melbourne: ACER.

Borland, J. (1997). Unemployment in Australia- Prospects and Policies-An Overview. *Australian Economic Review, 30*(4), 391-404.

Brown, J., Holdsworth, R. & Stokes, H. (2001). *Building relationships: Making education work*. Canberra: Commonwealth Department of Education, Training and Youth Affairs. Retrieved 30 November, 2001, from http://www.detya.gov.au/schools/publicat.htm.

Collins, C., Kenway, J. & McLeod, J. (2000). *Factors influencing the educational performance of males and females in school and their initial destinations after leaving school*. Canberra: Commonwealth Department of Education, Training and Youth Affairs. Retrieved 16 August, 2000, from http://www.detya.gov.au/iae/documents/gender report.PDF.

Dawkins, P.J. & Norris, K. (1995). Growth of part-time employment in Australia and the UK. *Labour Economics and Productivity, 7*(1), 1-27.

Dockery, A.M. & Norris, K. (1996). The 'rewards' for apprenticeship training in Australia. *Australian Bulletin of Labour, 22*(2), 109-125.

Dusseldorp Skills Forum. (2002). *How young people are faring. Key indicators 2002*. Sydney: Author.

Dwyer, P. (1996). *Opting out: Early school leaving and the degeneration of youth policy*. Hobart: National Clearinghouse for Youth Studies; & Melbourne: Youth Research Centre.

Eldridge, D. (chair) (2001). *Footprints to the future. Report from the Prime Minister's Youth Pathways Action Plan Taskforce*. Canberra: AusInfo.

Gaston, N. & Timcke, D. (1999). Do casual workers find permanent full-time employment? Evidence from the Australian Youth Survey. *The Economic Record, 75*(231), 333-347.

Graetz, B. (1993). Health consequences of employment and unemployment: longitudinal evidence for young men and women. *Social Science and Medicine, 36*, 715-724.

Gregory, R. (1993). Aspects of Australian and US living standards: The disappointing decades. *Economic Record, 69*, 61-76.

Gregory, R. (1995). Higher education expansion and economic change. *International Journal of Employment Studies, 3*(2), 295-322.

Holden, E. & Dwyer, P. (1992). *Making the break: Early school leaving*. Working Paper No 8. Melbourne: Youth Research Centre.

Jones, F.L. (1989). Occupational prestige in Australia: A new scale. *Australian and New Zealand Journal of Sociology, 25*, 187-199.

Jones, F.L. & McMillan, J. (2001). Scoring occupational categories for social research: A review of current practice, with Australian examples, *Work, Employment and Society, 15*(3), 539-563.

Kirby, P. (chair) (1985). *Report of the Committee of Inquiry into Labour Market Programs.* Canberra: Australian Government Publishing Service.

Kirby, P. (chair) (2000). *Ministerial Review of Post Compulsory Education and Training Pathways in Victoria. Final report.* Melbourne: Department of Education, Employment and Training.

Lamb, S., Dwyer, P. & Wyn, J. (2000). *Non-completion of school in Australia: The changing patterns of participation and outcomes.* LSAY Research Report No 16. Melbourne: ACER.

Lamb, S. & McKenzie, P. (2001). *Patterns of success and failure in the transition from school to work in Australia.* LSAY Research Report No 18. Melbourne: ACER.

Lamb, S. & Rumberger, R. (1999). *The initial work and education experiences of early school leavers: A comparative study of Australia and the United States.* LSAY Research Report No 14. Melbourne: ACER.

Lewis, P.E.T. & Koshy, P. (1999). Youth employment, unemployment and school participation. *Australian Journal of Education, 43*(1), 42-57.

Lewis, P.E.T. & Mclean, B. (1999). *The youth labour market in Australia.* CLMR Discussion Paper Series 99/1. Western Australia: The Centre for Labour Market Research, Murdoch University.

Long, M. (1996). *Samples and sampling for the Y95 LSAY cohort.* LSAY Technical Report No 8. Melbourne: ACER.

Long, M., Carpenter, P. & Hayden, M. (1999). *Participation in education and training 1980 to 1994.* LSAY Research Report No 13. Melbourne: ACER.

Long, M., Frigo, T. & Batten, M. (1999). *The school to work transition of indigenous Australians: A review of the literature and statistical analysis.* Canberra: Department of Education, Training and Youth Affairs.

Long, M., McKenzie, P. & Sturman, A. (1996). *Labour market participation and income consequences in TAFE.* ACER Research Monograph No 49. Melbourne: ACER.

MacDonald, H. (1999). *Bridging the gap. Assisting early school leavers to make the transition to work.* Fitzroy, Vic: Brotherhood of St Laurence.

Mare, R.D. (1980). Social background and school continuation decisions. *Journal of the American Statistical Association, 75*(370), 295-305.

Mare, R.D. (1981). Change and stability in educational stratification. *American Sociological Review, 46*, 72-87.

Marks, G.N. & Fleming, N. (1998a). *Factors influencing youth unemployment in Australia: 1980-1994.* LSAY Research Report No 7. Melbourne: ACER.

Marks, G.N. & Fleming, N. (1998b). *Youth earnings in Australia 1980-1994: A comparison of three youth cohorts.* LSAY Research Report No 8. Melbourne: ACER.

Marks, G.N. & Fleming, N. (1999). *Early school leaving in Australia: Findings from the 1995 Year 9 LSAY cohort.* LSAY Research Report No 11. Melbourne: ACER.

Marks, G.N., Fleming, N., Long, M. & McMillan, J. (2000). *Patterns of participation in Year 12 and higher education in Australia: Trends and issues.* LSAY Research Report No 17. Melbourne: ACER.

Marks, G.N. & Long, M. (2000). *Weighting the 1995 Year 9 cohort sample for differential response rates and sample attrition.* LSAY Technical Report No 15. Melbourne: ACER.

Marks, G.N., Western, J.S. & Western, M.C. (1989). Class and income in Australia. *Australian and New Zealand Journal of Sociology, 25*(3), 410-427.

McClelland, A., MacDonald, H. & MacDonald, F. (1998). The situation of young people not in education or full-time work. In *Australia's Youth: Reality and Risk*. Sydney: Dusseldorp Skills Forum.

Mcintyre, J., Freeland, J., Melville, B. & Schwenke, C. (1999). *Early school leavers at risk*. South Australia: National Centre for Vocational Education Research (NCVER).

McMillan, J. & Jones, F.L. (2000). The ANU3_2 scale: a revised occupational status scale for Australia. *Journal of Sociology*, *36*(1), 64-80.

McNabb, R. & Richardson, S. (1989). Earnings, education and experience. *Australian Economic Papers*, *28*, 57-75.

Ministerial Council on Education, Employment, Training and Youth Affairs. (1999). *The Adelaide Declaration on National Goals for Schooling in the Twenty-first Century*. Melbourne: Author. Retrieved 20Sept 2002, from http://www.curriculum..edu.au/mceetya.

Ministerial Council on Education, Employment, Training and Youth Affairs. (n.d.). *National report on schooling in Australia 2000*. Melbourne: Author. Retrieved 20 September, 2002, from http://www.curriculum.edu.au/mceetya.

Misko, J. (1999). *Transition pathways. What happens to young people when they leave school*. South Australia: National Centre for Vocational Education Research (NCVER).

National Centre for Vocational Education Research (2001). *Australian apprenticeships: Facts, fiction and future*. Leabrook, South Australia: author.

Nevile, J.W. & Saunders, P. (1998). Globalisation and the return to education in Australia. *The Economic Record, 74*(226), 279-285.

Rothman, S. (2002). Student absence in South Australian schools. *Australian Educational Researcher, 29*, 69-91.

Rumberger, R.W. (2000). Why students drop out of school and what can be done. *Paper prepared for the conference on 'Dropouts in America: How Severe is the Problem? What do we know about Intervention and Prevention?'* Harvard University, January 13, 2001.

Ryan, P. (2001). The school-to-work transition: a cross-national perspective. *Journal of Economic Literature*, *34*, 34-92.

Smyth, J., Hattam, R., Cannon, J., Edwards, J., Wilson, N. & Wurst, S. (2000). *Listen to me I'm leaving: Early school leaving in South Australian secondary schools*. Adelaide: Flinders Institute for the Study of Teaching; Department of Education, Training and Employment; & Senior Secondary Assessment Board of South Australia.

Speirings, J. (2001). Regional and local government initiatives to support youth pathways: lessons from innovative communities. In *Understanding youth pathways: ACER research conference 2001. Proceedings*. Melbourne: ACER.

Sweet, R. (1998). Youth: The rhetoric and the reality of the 1990s. In *Australia's youth: Reality and risk*. Sydney: Dusseldorp Skills Forum.

Teese, R. (2000). Post-compulsory education and training: Some recent research findings and policy implications. *The Australian Education Researcher*, *27*(3), 49-57.

Wayman, J.C. (2001). Factors influencing GED and Diploma attainment of high school dropouts. *Education Policy Analysis Archives, 9*(4).

Wooden, M. (1998). The labour market for young Australians. In *Australia's Youth: Reality and Risk*. Sydney: Dusseldorp Skills Forum.

Wooden, M. (2000). The changing skill composition of labour demand. *Australian Bulletin of Labour*, *26*(3), 191-198.

APPENDIX 1: THE LONGITUDINAL SURVEYS OF AUSTRALIAN YOUTH

The *Longitudinal Surveys of Australian Youth* (LSAY) project follows the experiences of young people as they move from school into post-secondary education, training and work. The project is jointly managed by the Australian Council for Educational Research (ACER) and the Commonwealth Department of Education, Science and Training.

A number of cohorts of young people have been surveyed as part of the LSAY program. The data for this report focus on the cohort of students who were in Year 9 in 1995, and follow their experiences up until 2000, which for the majority of the sample represents the second year after completion of secondary school.

The initial 1995 Year 9 sample included 13 613 students. The sample was a two-stage stratified random sample. In the first stage, a national sample of approximately 300 schools, designed to represent State and sector, was selected. In the second stage, two Year 9 classes were randomly selected from each sampled school. All students within the selected classes were invited to participate in the study (see Long, 1996 for details).

The first wave of data collection occurred when the respondents were in Year 9. Students were surveyed in their school, where they completed a questionnaire about themselves and their family backgrounds, their educational and vocational plans, and attitudes to school. Reading comprehension and numeracy tests were also administered to the students, in order to provide information on early school achievement.

Further data on educational and labour market participation continues to be collected from the sample members on an annual basis. Data collection was by mailed questionnaire in 1996, and by telephone interview from 1997 onwards. The 1996, 1997 and 1998 surveys gathered information about students' experiences during the year of the survey, including whether or not they had left school. Each of these surveys included a separate section for school non-completers, asking them their reasons for leaving school and their post-school activities. Questions on work satisfaction were also included. The more recent surveys, conducted in late 1999 and late 2000, again asked about post-school activities and work satisfaction during the previous year.

The number of persons responding to each survey wave is reported in Table 30. All results presented in this report have been weighted to correct for both the original sample design and subsequent attrition. A technical report by Marks and Long (2000) details the weighting procedure.

Table 30 Number of respondents to each wave of the Longitudinal Surveys of Australian Youth, 1995 Year 9 Cohort

Year	Number of respondents (unweighted)
1995	13 613
1996	9 837
1997	10 307
1998	9 738
1999	8 783
2000	7 889

APPENDIX 2: OTHER ESTIMATES OF SCHOOL NON-COMPLETION RATES

LSAY Research Reports: The estimates of school non-completion presented in this report differ slightly from estimates provided in earlier LSAY Research Reports that have analysed the same youth cohort. The discrepancies are the result of the number of survey waves analysed (the current report is the only one to incorporate information on 1999 school enrolment), other ways in which school non-completion have been operationalised, and the weighting procedures adopted to correct for sample design and attrition.

Ball and Lamb (2001) estimated a non-completion rate of 21 per cent for this cohort, compared with our estimate of 22 per cent. They did not use a weighting procedure to correct for sample design and attrition. Their measure of non-completion only used information collected up to 1998, supplemented with information from AVETMISS, while the current report utilised information collected up to 1999.

Marks et al's (2000) estimate of participation in Year 12 (76 per cent) is marginally lower than our estimate of 'completers' (78 per cent). Both estimates were weighted, using the same procedures. The discrepancies arise through different measurement procedures. Marks et al (2000) defined Year 12 participation as participation in Year 12 *in 1998*. In the current report, however, accelerated learners (who participated in Year 12 prior to 1998) and persons who repeated a grade (and therefore participated in Year 12 in 1999) are classified as 'completers' if they remained in school until August of Year 12.

Finally, while Marks and Fleming's (1999) estimate of early school leaving is the same as the estimate provided in the current report (9 per cent), it should be noted that the analysis in the current report is based upon a smaller number of cases due to sample attrition occurring between 1998 and 2000. Furthermore, the weighting procedures used in the current report to correct for sample design and attrition have been updated since the release of the report by Marks and Fleming. Consequently, some of the statistics presented on sub-categories of the early school leaver group may differ between the earlier and current reports.

Apparent retention rates: The estimates of school completion derived from the LSAY data are not directly comparable with the apparent retention rates published by the Australian Bureau of Statistics (ABS). The LSAY estimate of Year 12 completion for the 1995 Year 9 cohort is 79 per cent, whereas the ABS apparent retention rate of secondary school students from the commencement of secondary school to Year 12 is 72 per cent for 1998 (the modal calendar year for Year 12 completion among the 1995 Year 9 cohort). Both measures rely upon information on enrolment in August of Year 12. However, the ABS apparent retention rate is based on school census data, while the LSAY measure is a population estimate derived from a sample and it has an accompanying standard error.

The method of calculating the two measures also differs. The ABS retention rate for 1998 was calculated by dividing the total number of full-time students enrolled in Year 12 in 1998 by the sum of the full-time students in Year 7 in New South Wales, Victoria, Tasmania and the Australian Capital Territory in 1993 and the full-time students in Year 8 in Queensland, South Australia, West Australia and the Northern Territory in 1994 (since those years represent the commencement of the secondary school system in the respective states and territories). The resultant figure was converted to a percentage (ABS, 1999: 88). No adjustments were made for students repeating a year, migration, and other net changes to the school population (ABS, 1999:68). In contrast, the Year 12 completion rate used in this report is simply the proportion of LSAY sample members in Year 9 in 1995 that were in school in August of Year 12, irrespective of the calendar year in which they entered Year 12. Thus, cohort members who repeated a year, those who progressed at the usual rate, and those in accelerated programs were counted as school completers in the calculation of the LSAY estimate if they reached August of Year 12.

APPENDIX 3: VARIABLES

This appendix describes the variables used in the report. The variables are presented in the order they appear in the text. At the end of the appendix, a statistical summary of the variables is provided. The frequency distributions for the categorical measures are reported in Table 31 (single measures) and Table 32 (repeated measures). The means, standard deviations, and minimum and maximum values for the continuous measures are reported in Table 33.

School completion status: School non-completers were identified by questions in the 1996, 1997, 1998 and 1999 survey instruments on whether respondents were at school and if they were not, the year level (grade) and month in which they left school. The surveys clearly distinguished between students who changed schools and those who had permanently left school. Non-completers were subdivided into early school leavers and later school leavers. This distinction was made for the following reasons: to distinguish between those who completed what is commonly considered the compulsory years of schooling and those who did not; and to permit comparisons with Marks and Fleming's (1999) report which focuses on the early school leaver sub-group.

Early school leavers were defined as persons who left school on or before the end of Year 10. For the majority of early school leavers, this refers to the period from the time of first contact in 1995 to December 1996.

Later school leavers were defined as persons who left school between the commencement of Year 11 and August of Year 12. For the majority of later school leavers, this refers to the period from 1997 to August 1998. The August threshold was chosen so as to be consistent with the Australian Bureau of Statistics' census date for the National Schools Statistics Collection (ABS, 2000:122) and a recent analysis of school non-completions based upon LSAY data (Ball & Lamb, 2000).

Completers were defined as persons who commenced Year 12 and remained in school until at least August of that year. For the purposes of some analyses, completers were further subdivided into two groups: *completers who did not enter higher education* within a year or two of leaving school (by late 2000); and *completers who entered higher education* by late 2000.

Gender: Information on the sex of the respondents was obtained from responses to the 1995 questionnaire. In cases where this information was not provided, the students' names were used to infer the students' sex. This information was confirmed in subsequent telephone interviews.

Parental occupation: Sample members were asked in 1995 to report the occupations of their father (or male guardian) and mother (or female guardian), and to describe their work. If a parent was not employed at the time of the interview, respondents were asked to describe that parent's last job. Respondents were asked to provide information on both parents, even if their mother or father was not living with them. The information provided by respondents was coded to the four-digit level of the Australian Standard Classification of Occupations (ASCO), and subsequently used to create two occupational measures.

The first measure, *parental occupational group*, is a categorical measure. The responses were classified into four groups: professional/managerial; clerical/sales/personal service; skilled manual; and semi/unskilled manual. This measure was used to describe over-time trends in school non-completion and in bivariate analyses.

The second measure, *parental occupational status*, is a continuous variable. Responses were assigned occupational status scores based upon the ANU3 scale. Examples of jobs at the bottom of the ANU3 status hierarchy are various mining, construction and related labourers, forklift

drivers, cleaners and product assemblers. Examples of jobs at the top of the status hierarchy are medical practitioners, university teachers and legal professionals (Jones, 1989). The ANU3 scale ranges from 0 (low status) to 100 (high status), but for the purposes of the OLS and logistic regression analyses in this report, the scale was divided by 10 (and thus ranged from 0 to 10).

To simplify presentation and to make best use of the available information, the occupation of the male parent was taken as the basis for both the categorical and continuous occupational measures. When information on the occupation of the male parent was not available, the occupation of the female parent was substituted. This approach was taken because a large proportion of the respondents indicated that the occupation of the female parent was 'home duties', an occupation for which there is no occupational class or occupational prestige score.

Parental education: In 1995, respondents were asked to report the highest level of education completed by each parent. Three parental education variables based upon this information were used in this report. The use of multiple measures was necessitated by the need to remain comparable with, and extend, other research on school non-completers.

The first measure is a continuous measure based upon the years of education undertaken by the mother (or the father, if information on mother's education was missing). Years of education is standardised to a mean of 0. This is the parental education measure used in multivariate analyses.

The continuous measure was also collapsed to form a categorical measure, for use in bivariate analyses. The measure is comprised of four levels: very low (parental educational levels more than one standard deviation below the mean); low (parental educational levels up to one standard deviation below the mean); high (parental education levels ranging from the mean to less than one standard deviation above the mean); and very high (parents whose educational level was one standard deviation or more above the mean).

While the first two parental education measures were based upon years of education, the third measure refers to qualifications. It is based upon the highest qualification attained by either the mother or father. It is a categorical variable comprised of three levels: higher education qualifications; other post-secondary qualifications; and secondary school or less. This measure is used in the over-time analyses reported in Chapter 3.

Indigenous status: In the 1995 interview, students were asked: 'Are you an Aboriginal person or Torres Strait Islander person?' A dichotomous measure was constructed from responses to this question, permitting contrasts between Aboriginal and Torres Strait Islander students, and other students.

Language background: Two measures of language background are used in this report.

The first measure, *home language*, was measured by asking students in the 1995 survey 'What language does your family mostly speak at home?' A distinction was drawn between households where the main language spoken at home was English, and households where English was not the main language spoken. This is the measure of language background used in the majority of analyses in this report.

The second measure, *parents' country of birth,* was based upon data on father's country of birth, which was also collected in the 1995 survey. If information on father's country of birth was not available, information on mother's country of birth was used. The measure consists of three levels: Australia, other English-speaking country (including Canada, Ireland, New Zealand, South Africa, the United Kingdom and the United States), and non-English-speaking country. This measure is used in the over-time analyses reported in Chapter 3.

Region was measured by three categories (metropolitan, regional and rural/remote) based on the number of people in the locality of the student's place of residence in 1995 (Year 9). Metropolitan centres were defined as centres with populations of 100 000 persons or more. Regional areas were defined as centres with populations between 10 000 and 99 999 persons. Rural and remote areas were defined as farms or centres with less than 10 000 persons.

For the purposes of the over-time analyses reported in Chapter 3, the regional and rural/remote categories were collapsed to form a non-metropolitan category.

School sector: This measure refers to the school attended at the time of sample selection (Year 9, 1995), and the data for this measure were obtained from the sample design. Three categories are used – government schools, Catholic non-government schools, and non-Catholic non-government schools – identified respectively as government, Catholic and independent.

Literacy and numeracy achievement in Year 9 was measured by the respondents' combined scores on ACER administered literacy and numeracy tests undertaken in 1995. The tests included many items used in previous national studies of literacy and numeracy (the 1975 and 1980 ASSP studies) and in longitudinal studies of Australian young people (the 1989 *Youth in Transition* study and the *Australian Youth Survey*).

The literacy test comprised 20 items. Students were asked to read some text and then to answer several questions about what they had read. The text comprised short newspaper articles and longer textual passages. The material from newspapers included stories about a tug of war with a camel, a hang gliding flight, an armed robbery, birds trapped by dumped oil, scientific explanations of floating, and the flight of bees. The longer textual passages were on diverse topics such as the birth of a volcano, a railway worker's near fatal experience with an express train, and a dispute between two motorists.

The numeracy test comprised 20 questions. Three broad types of questions were asked. The first type dealt with mathematical operations (mainly computations) with little or no practical component. This included simple operations such as addition and subtraction, and more complex operations such as long division, fractions, squares, cubes, and square roots. The second type of questions required practical applications of numerical skills. Examples are questions about buying things, reading scales, tables and graphs, and calculating interest. The third type of questions required the application of abstract mathematical concepts. These were mainly logical and spatial problems.

The literacy and numeracy test results were combined in order to provide an overall measure of early school achievement. The scores for the literacy and numeracy tests were centred about the means and summed to produce a combined measure. The combined measure was then standardised to a mean of zero and a standard deviation of one. This measure was used in the multivariate analyses.

For the presentation of the bivariate analyses, the continuous measure was split into four categories based upon standard deviations of achievement. The first category (very low) referred to combined literacy and numeracy levels more than one standard deviation below the mean. The second category (low) comprised achievement levels up to one standard deviation below the mean. The next category (high) referred to achievement levels ranging from the mean to less than one standard deviation above the mean. The final category (very high) comprised achievement levels one standard deviation or more above the mean.

For the over-time trend analysis presented in Chapter 3, a second continuous measure, based upon quartiles of achievement, was employed in order to extend the analysis reported by Marks et

al (2000). The highest quartile represents the top 25 per cent of students, the next quartile represents the next 25 per cent of students, and so forth.

Reasons given for leaving school: Data on reasons for leaving school were collected in the 1997 and 1998 interviews. Information on early school leavers' reasons was obtained from the 1997 data, while later school leavers' reasons were obtained from the 1998 data. School leavers were read a list of eight possible reasons for leaving school, including both work-related and school-related reasons. Two types of information were obtained. First, school leavers were asked to indicate whether each of the listed reasons was an important or unimportant consideration in their decision to leave school. Second, they were asked what was the main reason why they left school. Respondents were allowed to specify a main reason other than those listed. Both sets of information are used in this report.

Post-secondary education and training: In each annual interview, respondents were asked to indicate any current participation in schooling and/or post-secondary education and training, and to provide details of qualifications completed since the last interview. Three sets of measures have been developed from this information.

The first set of measures relates to *participation in education and training*. For each year from 1997 to 2000, a variable comprising the following seven categories was generated: still at school; returned to school or studying school subjects at TAFE; in an apprenticeship/trade certificate; traineeship; other TAFE or non-degree study; bachelor's or higher degree; and not studying.

Two dichotomous variables - *participation in 2000 in a New Apprenticeship* (that is, apprenticeships and traineeships) and *participation in 2000 in other TAFE/non-degree study* - were also created for use as independent variables in multivariate regression analyses.

The third set of measures refers to *completed qualifications*. A series of dichotomous variables were created to indicate the possession, in late 2000, of the following types of qualifications: bachelor's degrees; apprenticeships; traineeships; and other qualifications; and conversely, whether the respondents had not completed a post-secondary qualification. For the purposes of some analyses, the apprenticeship and traineeship measures were combined to indicate the completion of a New Apprenticeship.

Main activity was derived from questions asking about schooling, post-school education and training, and labour market activities at the time of each annual interview. The classification comprises nine categories:

Studying full-time
1. still at school
2. post-school education or returned to school

Working full-time
3. enrolled in post-school education or training (including apprenticeships, traineeships and other part-time study)
4. not studying

Working part-time
5. part-time post-school education or training
6. not studying

Not working
7. part-time post-school education or training
8. looking for work
9. not in the labour force (and not studying)

These activities are prioritised in the order they are listed. For example if a respondent said they were looking for work but also had a full-time job then they are classified as having a full-time job. Similarly if a respondent said they worked part-time but studied full-time then they are classified as studying full-time. Measures for each year from 1997 to 2000 were developed. For the purposes of some analyses, some of these categories were combined.

It should be noted that the method of measuring main activity for this report differs from that used in Marks and Fleming's (1999) LSAY Research Report on early school leaving. In the previous report, 1997 data on the main activity since leaving school were analysed (pp.23-24). However, an equivalent question on 'main activity since the last interview,' applicable to respondents who left school prior to the previous interview, was not included in the 1998 to 2000 questionnaires.

Pathways: The main activity measures for 1997 to 2000 were used to develop a summary measure of post-school pathways. A distinction was drawn between full-time post-school labour market, education and training activities (categories 2-4 of the main activities classification), and marginal activities (categories 5-9 of the main activities classification). The pathways measure was designed to measure movement between these two broad categories of activities. It comprises four categories:

Pathway 1: those who were engaged in full-time labour market, education or training activities at the time of each annual post-school interview;

Pathway 2: those who engaged in a mix of full-time work/study and marginal activities in their post-school years, but who were in full-time work/study at the time of the 2000 interview;

Pathway 3: those who engaged in a mix of full-time work/study and marginal activities in their post-school years, but who were in marginal activities at the time of their 2000 interview; and

Pathway 4: those who were in marginal activities at the time of each post-school annual interview.

Unemployment: Two types of unemployment measures are used in this report.

The first set of measures, *unemployment incidence*, relate to unemployment at the time of each annual post-school interview from 1997 to 2000. Persons who were not working at the time of the interview, but had looked for work in the previous four weeks, were classified as unemployed.

The second set of measures relate to *proportion of time unemployed.* In each annual interview, respondents were asked to indicate during which months they had 'been not working but looking for work'. This information was combined with information on the number of months since leaving school to create five measures. The first four related to proportion of time spent unemployed in each *calendar year* from 1997 to (August of) 2000. The fifth measures the *total* proportion of time spent unemployed between leaving school and August of 2000. If the respondent left school prior to 1997, the measure was based upon the proportion of time worked since January 1997.

Occupation: In each annual interview, data on the jobs of employed respondents were collected and coded in accordance with the Australian Standard Classification of Occupations (ASCO) (ABS, 1997). Jobs that were obtained by the time of the 1999 interview were coded in accordance with ASCO (first edition), while jobs obtained between the 1999 and 2000 interviews and were coded in accordance with ASCO (second edition). This information was used to develop

measures relating to first job held since leaving school, and job at the time of the most recent data collection in 2000. Two types of occupational classifications were used to describe each of these jobs: occupational group and occupational status.

The first type of measure, *occupational group*, is categorical. Occupations were classified into four groups: managerial/professional/para professional; clerical/sales/personal services; skilled manual; and semi/unskilled manual.

The second type of measure, *occupational status*, is a continuous measure ranging from zero to 100. It is based upon the ANU3 scale (Jones, 1989; McMillan & Jones 2000; also refer to the description of parents' occupational status provided earlier in this appendix). For the purposes of OLS regression analyses, this measure was divided by 10.

In some analyses we distinguish between full-time and part-time work. Full-time work is defined as 30 or more hours per week, and part-time work is defined as 1 – 29 hours per week.

Proportion of time worked since leaving school: In each annual interview, respondents were asked to indicate during which months they had worked. Information on the number of months spent in employment since leaving school, and the number of months that had elapsed since leaving school were used to create a measure of the proportion of time worked since leaving school. If the respondent left school prior to 1997, the measure was based upon the proportion of time worked since January 1997.

Earnings: Information on current earnings from all jobs and number of hours worked were collected from school leavers at the time of each annual interview. For each year between 1997 and 2000, two measures of earnings were generated from this information: *weekly income* and *hourly earnings*. Additionally, the *log of hourly earnings in 2000* was used as the dependent variable in the multivariate analysis of earnings.

Job stability: Each year, employed school leavers who had also reported being in employment at the time of their previous annual interview were asked whether they were still in the same job. This information was used to create a three dichotomous variables relating to job stability between late 1997 and late 1998, between 1998 and 1999, and between 1999 and 2000.

Young people's views about their jobs and careers: Information on job and career satisfaction was collected from employed persons in each annual interview from 1997 to 2000. For employed persons who had left school, two sets of measures of career and work satisfaction were analysed.

Career satisfaction: Employed persons who had left school were asked 'is the job you have now the type of job you would like as a career?' These data were used to generate a series of dichotomous variables. Career satisfaction for the years 1997 to 2000 are reported.

Work satisfaction: Employed persons who had left school were asked to indicate whether they were very satisfied, fairly satisfied, fairly dissatisfied or very dissatisfied with each of the following aspects of their work: the kind of work they did; the people they worked with; their immediate boss/supervisor; pay; opportunities for training; tasks assigned; recognition; and opportunities for promotion. Work satisfaction was measured by the average (mean) of the responses to these items. A score of 1 indicates low work satisfaction and a score of 4 indicates high work satisfaction. Summary work satisfaction measures for the years 1997 to 2000 are reported.

Table 31 Summary of categorical measures, members of the Year 9 cohort of 1995 who remained in the sample in 2000 (frequencies and unweighted/ weighted percentages)

Measure	N	Per cent (unweighted)	Per cent (weighted)
Total	7889	100.0	100.0
School completion status			
Early school leaver	536	6.8	8.6
Later school leaver	990	12.6	12.8
Completer (no higher education)	3055	38.7	41.0
Completer (entered higher education)	3306	41.9	37.5
Gender			
Male	3718	47.1	48.9
Female	4171	52.9	51.1
Parental occupational group			
Professional/managerial	3383	47.3	44.1
Clerical/sales/personal service	1050	14.7	14.3
Skilled manual	1369	19.1	20.9
Semi/unskilled manual	1350	18.9	20.8
Parental education level (1)			
Very high: >1 SD above mean	1500	19.0	17.2
High: Mean to 1 SD above mean	1597	20.2	20.0
Low: Mean to 1 SD below mean	2374	30.1	30.6
Very low: >1 SD below mean	2418	30.7	32.2
Parental education level (2)			
University	1657	27.3	25.2
Other post-secondary	579	9.6	8.8
Secondary or less	3829	63.1	66.0
Indigenous status			
Indigenous	147	2.0	2.3
Non-indigenous	7285	98.0	97.8
Language background (home language)			
English	6978	91.1	88.9
Other	681	8.9	11.1
Language background (parents' country of birth)			
Australia	5241	68.7	67.5
Other English-speaking country	921	12.1	11.3
Non-English-speaking country	1468	19.2	21.3
Region			
Metropolitan	4386	55.6	55.2
Regional	1968	25.0	24.3
Rural/remote	1534	19.5	20.6
School sector			
Government	5090	64.5	68.2
Catholic	1542	19.6	19.9
Independent	1257	15.9	11.9
Literacy & numeracy achievement (Year 9)			
Very high: > 1 SD above mean	1430	18.1	14.5
High: mean to 1 SD above mean	3333	42.3	37.8
Low: mean to 1 SD below mean	1945	24.7	27.4
Very low: >1 SD below mean	1181	15.0	20.4

Notes: SD = standard deviation

Table 31 (continued)

Measure	N	Per cent (unweighted)	Per cent (weighted)
Reasons for leaving school (non-completers only)			
I wanted to get a job/apprenticeship			
Important	1151	79	79
Not important	301	21	21
To earn my own money			
Important	1101	76	76
Not important	351	24	24
I wanted to do job training that wasn't available at school			
Important	656	45	45
Not important	796	55	55
I didn't like school			
Important	721	50	50
Not important	731	50	50
I was not doing very well at school			
Important	577	40	42
Not important	875	60	58
The school didn't offer the subjects/courses I wanted to do			
Important	558	38	38
Not important	894	62	62
Teachers thought I should			
Important	234	16	16
Not important	1218	84	84
Financially it was hard to stay at school			
Important	264	18	19
Not important	1188	82	81
Main reason for leaving school (non-completers only)			
I wanted to get a job/apprenticeship	694	48	48
To earn my own money	78	5	5
I wanted to do job training that wasn't available at school	80	6	5
I didn't like school	185	13	13
I was not doing very well at school	125	9	9
The school didn't offer the subjects/courses I wanted to do	81	6	6
Teachers thought I should	27	2	2
Financially it was hard to stay at school	19	1	1
Other reason	163	11	11
Completed an apprenticeship by 2000			
Yes	172		2.6
No	7717		97.4
Completed a traineeship by 2000			
Yes	112		1.5
No	7777		98.6
Completed other TAFE/non-degree course by 2000			
Yes	1512		20.5
No	6377		79.5
Completed bachelor's degree			
Yes	1		0.0
No	7888		100.0

Table 31 (continued)

Measure	N	Per cent (unweighted)	Per cent (weighted)
First occupation (excluding completers in higher education and others who had not obtained a post-school job by the 2000 interview)			
Manager/professional/para-professional	269	6.4	6.2
Clerk/sales/personal service	2073	49.1	48.7
Tradesperson	810	19.2	20.4
Semi/unskilled manual worker	1070	25.3	24.8
Occupation in 2000 (full-time) (excluding completers in higher education, part-time workers and persons who had not obtained a post-school job)			
Manager/professional/para-professional	377	13.5	13.0
Clerk/sales/personal service	1107	39.7	39.7
Tradesperson	772	27.7	28.2
Semi/unskilled manual worker	535	19.2	19.1
Occupation in 2000 (part-time) (excluding completers in higher education, part-time workers and persons who had not obtained a post-school job)			
Manager/professional/para-professional	80	8.0	8.8
Clerk/sales/personal service	614	64.4	64.5
Tradesperson	66	6.9	6.8
Semi/unskilled manual worker	194	20.3	19.9
% of post-school time spent employed (excluding completers in higher education, part-time workers and persons who had not obtained a post-school job)			
< 50 %	298	10.4	9.8
50 – 74 %	410	14.3	14.4
75 – 99 %	1266	44.1	44.6
100 %	897	31.2	31.2

Table 32 Summary of categorical variables measured at multiple time-points, members of the Year 9 cohort of 1995 who remained in the sample in 2000 (unweighted frequencies and weighted percentages)

Measure	At time of interview in ...									
	1997		1998		1999		2000		1997-2000	
	N	%	N	%	N	%	N	%	N	%
Participation in education and training										
Still at school	7034	87.0	6439	79.7	256	3.0	19	0.2	-	-
Rtn to school/school subject at TAFE	.	.	71	1.0	73	1.0	32	0.4	-	-
Apprenticeship/trade certificate	213	3.5	346	5.2	572	8.1	680	9.6	-	-
Traineeship	68	1.0	122	1.5	385	4.9	324	4.1	-	-
Other TAFE/non-degree study	115	1.8	140	1.9	1400	19.0	986	13.2	-	-
Bachelor's/higher degree	1	0.0	1	0.0	2679	30.3	2885	32.5	-	-
Not studying	458	6.8	758	10.8	2500	33.6	2931	40.1	-	-
Education, training and labour market activities										
Studying full-time										
- still at school	7034	87.0	6440	79.7	256	3.0	19	0.2	-	-
- post-school education (or returned to school)	105	1.5	193	2.5	3884	46.3	3486	40.9	-	-
Working full-time										
- enrolled in post-school education & training	270	4.3	457	6.6	1071	14.9	1214	16.3	-	-
- not studying	233	3.3	330	5.4	1527	20.5	1929	26.2	-	-
Working part-time										
- part-time post-school education & training	12	0.3	13	0.2	106	1.5	148	1.7	-	-
- not studying	66	1.0	133	1.8	464	5.9	456	6.0	-	-
Not working										
- part-time post-school education & training	10	0.2	16	0.3	48	0.8	59	0.8	-	-
- looking for work	115	1.7	187	2.9	353	5.0	346	5.1	-	-
- not in the labour force	44	0.7	58	0.7	156	2.1	200	2.8	-	-
Pathways (excluding completers in higher education)										
Pathway 1: full-time work /study	-	-	-	-	-	-	-	-	2810	61.4
Pathway 2: some marginal activities	-	-	-	-	-	-	-	-	700	15.6
Pathway 3: some marginal activities	-	-	-	-	-	-	-	-	642	14.5
Pathway 4: marginal activities every interview	-	-	-	-	-	-	-	-	374	8.6

Table 32 (continued)

Measure	At time of interview in ...								1997-2000	
	1997		1998		1999		2000			
	N	%	N	%	N	%	N	%	N	%
Percentage of time spent unemployed since leaving school (excludes persons still at school and completers who entered higher education)										
0 per cent	767	74.2	3137	77.3	2958	64.9	3577	78.7	2346	50.9
1 – 24 per cent	49	4.5	192	4.7	709	16.0	355	7.4	1474	32.5
25 – 49 per cent	62	6.4	152	4.1	409	9.3	288	6.2	407	9.3
50 – 74 per cent	36	4.0	100	2.6	179	3.8	116	2.8	216	5.1
75 – 99 per cent	33	3.9	64	1.7	160	3.9	86	1.9	58	1.4
100 per cent	67	7.1	368	9.7	86	2.1	135	2.9	36	0.8
Unemployed at time of interview (excludes persons still at school and completers who entered higher education)										
Yes	115	13.3	187	14.0	332	7.9	327	7.8	-	-
No	740	86.7	1250	86.0	4061	92.1	4209	92.2	-	-
In same job as in the previous year? (excludes persons still at school and completers who entered higher education)										
Yes	-	-	428	57.9	1096	50.6	1941	59.8	-	-
No	-	-	331	42.1	1100	49.4	1296	40.2	-	-
Current job is type of job respondent would like as a career (excludes persons still at school and completers who entered higher education)										
Yes	313	56.1	572	56.3	1419	43.3	1708	48.5	-	-
No	234	38.7	392	38.3	1715	49.4	1661	44.2	-	-
Don't know	32	5.3	56	5.3	253	7.3	262	7.3	-	-

Table 33 Statistical summary of continuous measures, members of the Year 9 cohort of 1995 who remained in the sample in 2000 (numbers, means, standard deviations, and minimum and maximum values)

Variable	N	Mean (unweighted)	Mean (weighted)	Std dev (weighted)	Min	Max
Parental occ status (ANU3/10)	7152	3.97	3.81	2.25	0.00	10.00
Parental education	5640	0.13	-0.02	2.51	-5.48	3.62
Literacy & numeracy (Year 9)	7722	0.18	-0.01	0.99	-3.62	2.20
% post-school time spent unempl. (excludes completers who entered higher education)						
1997	1014	13.99	15.23	33.79	0.00	100.00
1998	4013	13.72	14.47	33.16	0.00	100.00
1999	4501	11.96	12.43	24.98	0.00	100.00
2000 (Jan – Aug)	4557	8.67	8.76	23.06	0.00	100.00
1997-Aug 2000	4537	11.28	11.73	20.62	0.00	100.00
% time employed since leaving school (to Aug 2000) (excluding completers in higher ed)	4538	72.02	71.78	33.35	0.00	100.00
Occupational status (ANU3) (excluding completers in higher ed)						
First post-school job	4219	22.18	22.27	11.8	0.0	79.5
Job in 2000 (full-time)	2783	25.36	25.11	12.47	0.8	88.7
Job in 2000 (part-time)	954	20.46	20.51	11.22	1.6	82.1
Weekly income (excluding persons in school and completers in higher education)						
1997	501	216.69	218.19	119.09	20.00	999.00
1998	862	251.40	249.87	130.52	15.00	1200.00
1999	2938	293.31	299.75	175.05	10.00	2000.00
2000	3226	382.77	388.14	197.87	5.00	2500.00
Hourly earnings (excluding persons in school and completers in higher education)						
1997	499	6.53	6.61	3.25	2.00	27.48
1998	857	7.73	7.67	3.67	1.19	56.00
1999	2926	9.54	9.65	4.21	1.67	100.00
2000	3217	11.66	11.73	10.01	2.00	360.00
Work satisfaction (excluding persons in school and completers in higher education)						
1997	579	3.33	3.34	0.50	1.88	4.00
1998	1020	3.26	3.26	0.51	1.00	4.00
1999	3387	3.21	3.22	0.51	1.00	4.00
2000	3631	3.20	3.21	0.47	1.13	4.00

APPENDIX 4: SUPPLEMENTARY TABLES AND FIGURES

Table 34 School non-completion by sociodemographic and academic characteristics, early 1980s to late 1990s (percentages and odds ratios)

	Males				Females			
	1980/1 Yr 10 cohort	1988/9 Yr 10 cohort	1992/3 Yr 10 cohort	1995 Yr 9 cohort	1980/1 Yr 10 cohort	1988/9 Yr 10 cohort	1992/3 Yr 10 cohort	1995 Yr 9 cohort
PANEL 1: Percentages								
Total cohort	62	46	30	26	51	37	18	16
Parental occupational group								
Professional/managerial	33	27	16	17	23	19	7	11
Clerical/sales/personal serv.	43	29	22	23	35	25	14	14
Skilled manual	68	48	30	34	51	38	17	21
Semi/unskilled manual	71	60	38	40	68	45	21	22
Parental education								
University	25	19	15	13	23	15	5	8
Post-secondary	43	31	22	29	32	23	12	13
Secondary or less	67	52	36	27	56	40	20	18
School sector								
Government	67	52	35	32	58	43	21	21
Catholic	53	30	18	14	37	22	10	10
Independent	21	17	11	13	18	13	5	10
Region								
Metropolitan	60	43	28	21	49	32	14	12
Non-metropolitan	69	54	43	34	58	48	25	21
Language background (parents' country of birth)								
Non-Eng. speaking country	47	31	19	13	43	24	9	9
Australia	65	49	33	29	51	40	19	19
Other Eng.speaking country	66	50	27	28	67	41	13	19
PANEL 2: Odds ratios								
Gender								
Female	1.0	1.0	1.0	1.0	.	.	.	.
Male	1.6	1.5	2.0	1.8	.	.	.	.
Parental occupational group								
Professional/managerial	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Clerical/sales/personal serv.	1.5	1.0	1.5	1.5	1.8	1.4	2.2	1.3
Skilled manual	4.3	2.5	2.3	2.5	3.5	2.6	2.7	2.2
Semi/unskilled manual	5.0	4.1	3.2	3.2	7.1	3.5	3.5	2.3
Parental education								
University	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Post-secondary	2.3	1.9	1.6	2.7	1.6	1.7	2.6	1.7
Secondary or less	6.1	4.6	3.2	2.5	4.3	3.8	4.8	2.5
School sector								
Independent	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Catholic	4.2	2.1	1.8	1.1	2.7	1.9	2.1	1.0
Government	7.6	5.3	4.4	3.1	6.3	5.0	5.1	2.4
Region								
Metropolitan	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Non-metropolitan	1.5	1.6	1.9	1.9	1.4	2.0	2.0	1.9
Language background (parents' country of birth)								
Non-Eng. speaking country	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Australia	2.1	2.1	2.1	2.7	1.4	2.1	2.3	2.4
Other Eng.speaking country	2.2	2.2	1.6	2.6	2.7	2.2	1.5	2.4

Source: 1980/1, 1988/9 and 1992/3 Year 10 cohorts (Lamb, Dwyer & Wyn, 2000:18)

Table 35 School non-completion by literacy and numeracy, early 1980s to late 1990s (percentages and odds ratios)

Cohort: Did not complete Yr 12 by ...	Born in 1965 1984	Born in 1970 1989	Born in 1975 1994	Yr 9 in 1995 1999
PANEL 1: Percentages				
Literacy and numeracy				
Very high	39	17	8	8
High	64	43	17	15
Low	69	49	29	26
Very low	84	78	42	38
PANEL 2: Odds ratios				
Literacy and numeracy				
Very high	1.0	1.0	1.0	1.0
High	2.8	3.7	2.4	2.0
Low	3.5	4.7	4.7	4.0
Very low	8.2	17.3	8.3	7.0

Source: 1965, 1970 and 1975 birth cohorts (Marks et al, 2000:10)

Note: The results for the 1995 Year 9 cohort differ to those published by Marks et al (2000:10). The earlier report measured school completion by participation in Year 12 in the 1998 calendar year, whereas for the purposes of the current report, school completion is defined as reaching August of Year 12 in any year up to and including 1999.

Table 36 Influences on early school leaving (percentages, regression coefficients, unadjusted odds ratios, adjusted odds ratios)[1]

	% who were early leavers	Unstandardised regression coefficients[2] (bivariate model)	Unstandardised regression coefficients[2] (full model)	Unadjusted odds ratio (95% confidence interval)	Adjusted[3] odds ratio (95% confidence interval)
PANEL 1: Variables included in full model					
Gender			*-4.38 (0.35)*		
Female	6	*-2.60 (0.06)*		1.00	
Male	11	0.52 (0.08)	0.71 (0.11)	1.68 (1.45-1.95)	2.03 (1.65-2.51)
Parental occupational status		*-1.84 (0.07)*			
Occupational status (ANU3/10)	.	-0.16 (0.02)	-0.09 (0.03)	0.85 (0.82-0.89)	0.91 (0.86-0.96)
Parental education level		*-2.49 (0.05)*			
Years of education	.	-0.12 (0.02)	-0.06 (0.02)	0.89 (0.85-0.92)	0.94 (0.90-0.99)
Indigenous status					
Non-indigenous	8	*-2.36 (0.04)*		1.00	
Indigenous	20	1.14 (0.18)	0.72 (0.27)	3.13 (2.21-4.44)	2.05 (1.22-3.45)
Language background (home language)					
Lang background other than Eng	4	*-3.07 (0.16)*		1.00	
English	9	0.79 (0.17)	0.89 (0.26)	2.21 (1.60-3.06)	2.43 (1.45-4.07)
Region					
Metropolitan	6	*-2.71 (0.06)*		1.00	
Regional	10	0.54 (0.09)	0.49 (0.14)	1.72 (1.43-2.06)	1.63 (1.25-2.12)
Rural/Remote	14	0.97 (0.09)	1.01 (0.13)	2.63 (2.21-3.13)	2.75 (2.13-3.54)
School sector					
Independent	4	*-3.12 (0.15)*		1.00	
Catholic	6	0.44 (0.18)	0.35 (0.25)	1.56 (1.09-2.22)	1.42 (0.87-2.31)
Government	10	0.98 (0.16)	0.50 (0.23)	2.67 (1.96-3.64)	1.64 (1.05-2.55)
Literacy & Numeracy (Year 9)		*-2.58 (0.05)*			
Level	.	-0.77 (0.04)	-0.80 (0.06)	0.47 (0.43-0.50)	0.45 (0.40-0.50)
PANEL 2: Additional variables used in bivariate analyses					
Parental occupational group					
Professional/managerial	6	*-2.37 (0.04)*	.	1.00	.
Clerical /sales/personal service	7	-0.26 (0.10)	.	1.12 (0.85-1.47)	.
Skilled manual	12	0.33 (0.07)	.	2.03 (1.65-2.51)	.
Semi/unskilled manual	10	0.31 (0.07)	.	1.98 (1.61-2.43)	.
Parental education level (collapsed)					
Very high: > 1 SD above mean	4	*-2.46 (0.04)*	.	1.00	.
High: Mean to 1 SD above mean	9	0.18 (0.07)	.	2.43 (1.79-3.29)	.
Low: Mean to 1 SD below mean	8	0.09 (0.07)	.	2.21 (1.65-2.96)	.
Very low: > 1 SD below mean	11	0.44 (0.06)	.	3.14 (2.36-4.16)	.
Literacy & numeracy (collapsed)					
Very high: > 1 SD above mean	2	*-2.60 (0.06)*	.	1.00	.
High: Mean to 1 SD above mean	5	-0.33 (0.08)	.	2.55 (1.68-3.87)	.
Low: Mean to 1 SD below mean	10	0.40 (0.08)	.	5.29 (3.51-7.98)	.
Very low: > 1 SD below mean	18	1.20 (0.07)	.	11.79 (7.86-17.68)	.

1. Analysis based upon the 1995 Year 9 cohort.
2. Intercepts presented in italics; standard errors in parentheses.
3. Adjusted for the other variables indicated in this Panel.

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Table 37 Influences on later school leaving (percentages, regression coefficients, unadjusted odds ratios, adjusted odds ratios)[1]

	% who were later leavers	Unstandardised regression coefficients[2] (bivariate model)	Unstandardised regression coefficients[2] (full model)	Unadjusted odds ratio (95% confidence interval)	Adjusted[3] odds ratio (95% confidence interval)
PANEL 1: Variables included in full model			*-3.71 (0.30)*		
Gender					
Female	11	*-2.03 (0.05)*		1.00	
Male	17	0.52 (0.06)	0.55 (0.09)	1.68 (1.48-1.90)	1.74 (1.46-2.08)
Parental occupational status		*-1.28 (0.06)*			
Occupational status (ANU3/10)	.	-0.15 (0.02)	-0.07 (0.02)	0.86 (0.83-0.89)	0.93 (0.89-0.97)
Parental education level		*-1.96 (0.04)*			
Years of education	.	-0.11 (0.02)	-0.04 (0.02)	0.90 (0.87-0.93)	0.96 (0.92-0.99)
Indigenous status					
Non-indigenous	13	*-1.81 (0.03)*		1.00	
Indigenous	33	1.11 (0.18)	0.52 (0.28)	3.03 (2.14-4.31)	1.68 (0.97-2.92)
Language background (home language)					
Lang background other than Eng	6	*-2.62 (0.13)*		1.00	
English	15	0.92 (0.14)	1.43 (0.25)	2.51 (1.91-3.30)	4.16 (2.55-6.78)
Region					
Metropolitan	11	*-2.01 (0.05)*		1.00	
Regional	17	0.52 (0.08)	0.27 (0.11)	1.68 (1.45-1.94)	1.30 (1.06-1.61)
Rural/Remote	17	0.56 (0.08)	0.35 (0.11)	1.75 (1.49-2.04)	1.42 (1.13-1.77)
School sector					
Independent	7	*-2.49 (0.12)*		1.00	
Catholic	6	-0.08 (0.15)	-0.53 (0.20)	0.92 (0.68-1.24)	0.59 (0.40-0.87)
Government	17	1.00 (0.12)	0.41 (0.16)	2.73 (2.14-3.47)	1.51 (1.11-2.05)
Literacy & Numeracy (Year 9)		*-1.85 (0.03)*			
Level	.	-0.56 (0.03)	-0.54 (0.05)	0.57 (0.53-0.61)	0.58 (0.53-0.64)
PANEL 2: Additional variables used in bivariate analyses					
Parental occupational group					
Professional/managerial		*-1.76 (0.04)*	.	1.00	.
Clerical /sales/personal service	12	-0.10 (0.07)	.	1.52 (1.23-1.88)	.
Skilled manual	18	0.29 (0.06)	.	2.23 (1.87-2.67)	.
Semi/unskilled Manual	18	0.32 (0.06)	.	2.31 (1.94-2.76)	.
Parental education level (collapsed)					
Very high: > 1 SD above mean	7	*-1.90 (0.04)*	.	1.00	.
High: Mean to 1 SD above mean	13	0.02 (0.06)	.	1.97 (1.53-2.53)	.
Low: Mean to 1 SD below mean	14	0.17 (0.05)	.	2.30 (1.83-2.89)	.
Very low: > 1 SD below mean	18	0.47 (0.05)	.	3.09 (2.47-3.87)	.
Literacy & numeracy (collapsed)					
Very high: > 1 SD above mean	6	*-1.85 (0.04)*	.	1.00	.
High: Mean to 1 SD above mean	10	-0.30 (0.06)	.	1.76 (1.36-2.28)	.
Low: Mean to 1 SD below mean	17	0.36 (0.06)	.	3.38 (2.62-4.37)	.
Very low: > 1 SD below mean	24	0.80 (0.06)	.	5.24 (4.05-6.79)	.

1. Analysis based upon members of the 1995 Year 9 cohort who commenced Year 11.
2. Intercepts presented in italics; standard errors in parentheses.
3. Adjusted for the other variables indicated in this Panel.

Table 38 Influences on *not* entering higher education (percentages, regression coefficients, unadjusted odds ratios, adjusted odds ratios)[1]

	% who did not enter H.E.	Unstandardised regression coefficients[2] (bivariate model)	Unstandardised regression coefficients[2] (full model)	Unadjusted odds ratio (95% confidence interval)	Adjusted[3] odds ratio (95% confidence interval)
PANEL 1: Variables included in full model			*-1.44 (0.17)*		
Gender					
Female	48	*-0.23 (0.03)*		1.00	
Male	55	0.33 (0.05)	0.53 (0.07)	1.39 (1.25-1.53)	1.70 (1.48-1.95)
Parental occupational status		*0.55 (0.05)*			
Occupational status (ANU3/10)	.	-0.17 (0.01)	-0.09 (0.02)	0.85 (0.83-0.87)	0.92 (0.89-0.95)
Parental education level		*-0.19 (0.03)*			
Years of education	.	-0.16 (0.01)	-0.10 (0.01)	0.86 (0.84-0.88)	0.91 (0.88-0.93)
Indigenous status					
Non-indigenous	51	*-0.09 (0.03)*		1.00	
Indigenous	58	0.44 (0.23)	-0.11 (0.33)	1.55 (0.99-2.41)	0.89 (0.47-1.69)
Language background (home language)					
Lang background other than Eng	41	*-0.57 (0.08)*		1.00	
English	53	0.55 (0.09)	1.40 (0.14)	1.73 (1.45-2.05)	4.06 (3.07-5.37)
Region					
Metropolitan	48	*-0.24 (0.03)*		1.00	
Regional	54	0.34 (0.06)	0.08 (0.08)	1.41 (1.25-1.60)	1.08 (0.92-1.28)
Rural/Remote	57	0.44 (0.07)	0.14 (0.09)	1.56 (1.36-1.78)	1.16 (0.96-1.39)
School sector					
Independent	33	*-0.77 (0.06)*		1.00	
Catholic	44	0.39 (0.08)	0.05 (0.11)	1.48 (1.25-1.75)	1.05 (0.84-1.31)
Government	58	0.98 (0.07)	0.55 (0.10)	2.67 (2.32-3.07)	1.73 (1.43-2.09)
Literacy & numeracy (Year 9)		*0.21 (0.03)*			
Level	.	-0.94 (0.03)	-0.92 (0.05)	0.39 (0.37-0.42)	0.40 (0.36-0.44)
PANEL 2: Additional variables used in bivariate analyses					
Parental occupational group					
Professional/managerial	41	*0.02 (0.03)*	.	1.00	.
Clerical /sales/personal service	51	-0.14 (0.06)	.	1.40 (1.21-1.63)	.
Skilled manual	60	0.32 (0.05)	.	2.23 (1.93-2.57)	.
Semi/unskilled manual	60	0.30 (0.05)	.	2.19 (1.90-2.54)	.
Parental education level (collapsed)					
Very high: > 1 SD above mean	33	*-0.14 (0.03)*	.	1.00	.
High: Mean to 1 SD above mean	52	0.14 (0.05)	.	2.45 (2.08-2.87)	.
Low: Mean to 1 SD below mean	53	0.17 (0.04)	.	2.52 (2.17-2.92)	.
Very low: > 1 SD below mean	62	0.45 (0.04)	.	3.33 (2.87-3.87)	.
Literacy & numeracy (collapsed)					
Very high: > 1 SD above mean	25	*0.09 (0.03)*	.	1.00	.
High: Mean to 1 SD above mean	45	-0.35 (0.04)	.	2.58 (2.23-2.99)	.
Low: Mean to 1 SD below mean	64	0.52 (0.05)	.	6.11 (5.17-7.22)	.
Very low: > 1 SD below mean	79	1.12 (0.07)	.	11.23 (9.05-13.93)	.

1. Analysis based upon members of the 1995 Year 9 cohort who completed Year 12.
2. Intercepts presented in italics; standard errors in parentheses.
3. Adjusted for the other variables indicated in this Panel.

Table 39 Annual pathways of school completers who entered higher education in the first two post-school years, 1999-2000 (n=2959)

Activity in1999	(col %)	Activity in 2000 (row %)					
		At school /FT study	FT work + study	FT work only	PT work /PT study	Not working nor studying	Total %
At school/FT study	89	89	2	5	3	1	100
FT work+ study	2	30	34	9	26	.	100
FT work only	4	88	7	.	4	.	100
PT work/PT study	3	67	5	2	25	.	100
Not working nor studying	1	99	.	.	1	.	100
Total %	100	87	3	5	4	1	100

Note: Over 99 per cent of the school completers were in secondary school in 1997 and 1998

Table 40 Influences on unemployment in 2000 (logistic regression coefficients)

	Model 1 Social background	Model 2 1 + schooling	Model 3 2 + post-school education and training
PANEL 1: Unstandardised			
Intercept	-2.13***	-2.40***	-2.49***
Gender			
Female	.	.	.
Male	0.11	0.04	0.13
Parent occ status (ANU3/10)	-0.13***	-0.11**	-0.11***
Language background			
English	.	.	.
Other	0.66**	0.62**	0.61**
Region			
Metropolitan	.	.	.
Regional	0.05	0.06	0.06
Rural/remote	0.16	0.22	0.20
School sector			
Government		.	.
Catholic		-0.22	-0.21
Independent		0.15	0.14
Literacy & numeracy (Yr 9)		-0.31***	-0.31***
School completion status			
Early leaver		.	.
Later leaver		0.51*	0.50*
Completer not in higher ed.		-0.01	-0.07
Completed an apprenticeship			-0.81*
Completed a traineeship			0.49
Completed other study			0.35**
PANEL 2: Standardised			
Gender			
Female	.	.	.
Male	0.03	0.01	0.04
Parent occ status (ANU3/10)	-0.15	-0.13	-0.13
Language background			
English	.	.	.
Other	0.09	0.08	0.08
Region			
Metropolitan	.	.	.
Regional	0.01	0.02	0.02
Rural/remote	0.04	0.05	0.05
School sector			
Government		.	.
Catholic		-0.05	-0.05
Independent		0.02	0.02
Literacy & numeracy (Yr 9)		-0.16	-0.16
School completion status			
Early leaver		.	.
Later leaver		0.12	0.12
Completer not in higher ed.		-0.004	-0.02
Completed an apprenticeship			-0.10
Completed a traineeship			0.04
Completed other study			0.09

Note: Analysis excludes full-time students and persons not in the labour force.

† 0.10>P>0.05; * 0.05>P>0.01; ** 0.01>P>0.001; *** P<0.001

Table 41 Influences on occupational status in 2000, non-completers and completers who had not entered higher education (unstandardised and standardised regression coefficients)

	Model 1 Social background	Model 2 1 + schooling	Model 3 2 + post-school activities
PANEL 1: Unstandardised			
Intercept	2.63***	2.62***	2.06***
Gender			
Female	.	.	.
Male	-0.39***	-0.37***	-0.40***
Parental occupational status (ANU3/10)	0.05***	0.03**	0.03**
Language background (home language)			
English	.	.	.
Other	-0.03	-0.02	0.02
Region			
Metropolitan	.	.	.
Regional	-0.05	-0.03	-0.03
Rural/remote	-0.13*	-0.12*	-0.15*
School sector			
Government		.	.
Catholic		0.16*	0.14*
Independent		0.07	0.10
Literacy and Numeracy (Year 9)		0.14***	0.13***
School completion status			
Early leaver		.	.
Later leaver		-0.04	-0.02
Completer not in higher education		-0.07	0.08
Completed New Apprenticeship			0.00
Completed other post-school qualification			0.14**
In New Apprenticeship			0.25***
In other post-school qualification			0.56***
Per cent of post-school time spent employed			0.01***
PANEL 2: Standardised			
Gender			
Female	.	.	.
Male	-0.16	-0.15	-0.16
Parental occupational status (ANU3/10)	0.08	0.06	0.05
Language background (home language)			
English	.	.	.
Other	-0.005	-0.003	0.00
Region			
Metropolitan	.	.	.
Regional	-0.02	-0.01	-0.01
Rural/remote	-0.05	-0.04	-0.05
School sector			
Government		.	.
Catholic		0.05	0.04
Independent		0.02	0.02
Literacy and numeracy (Year 9)		0.10	0.10
School completion status			
Early leaver		.	.
Later leaver		-0.01	-0.01
Completer not in higher education		0.03	0.03
Completed New Apprenticeship			0.00
Completed other post-school qualification			0.05
In New Apprenticeship			0.10
In other post-school qualification			0.10
Per cent of post-school time spent employed			0.09
R^2	0.03	0.05	0.07

*0.05>P>0.01; **0.01>P>0.001; ***P<0.001

Table 42 Influences on earnings in 2000, non-completers and completers who had not entered higher education (unstandardised and standardised regression coefficients)

	Model 1 Social background	Model 2 1 + schooling	Model 3 2 + post-school activities
PANEL 1: Unstandardised			
Intercept	2.33***	2.43***	2.33***
Gender			
Female	.	.	.
Male	0.00	-0.01	0.06***
Parental occupational status (ANU3/10)	0.01**	0.01**	0.01**
Language background (home language)			
English	.	.	.
Other	0.01	0.02	0.03
Region			
Metropolitan	.	.	.
Regional	-0.02	-0.02	-0.01
Rural/remote	-0.03*	-0.04*	-0.02
School sector			
Government		.	.
Catholic		0.06**	0.05*
Independent		0.01	0.00
Literacy & numeracy (Year 9)		0.02**	0.03***
School completion status			
Early leaver		.	.
Later leaver		-0.06*	-0.04
Completer not in higher education		-0.13***	-0.13***
Completed New Apprenticeship			-0.06*
Completed other post-school qualification			0.00
In New Apprenticeship			-0.27***
In other post-school qualification			-0.01
Per cent of post-school time spent employed			0.002***
PANEL 2: Standardised			
Gender			
Female	.	.	.
Male	0.00	-0.02	0.08
Parental occupational status (ANU3/10)	0.07	0.06	0.06
Language background (home language)			
English	.	.	.
Other	0.01	0.01	0.02
Region			
Metropolitan	.	.	.
Regional	-0.02	-0.03	-0.01
Rural/remote	-0.05	-0.05	-0.02
School sector			
Government		.	.
Catholic		0.06	0.05
Independent		0.01	0.00
Literacy & numeracy (Year 9)		0.06	0.07
School completion status			
Early leaver		.	.
Later leaver		-0.07	-0.04
Completer not in higher education		-0.17	-0.18
Completed New Apprenticeship			-0.04
Completed other post-school qualification			0.00
In New Apprenticeship			-0.35
In other post-school qualification			-0.01
Per cent of post-school time spent employed			0.11
R^2	0.01	0.03	0.14

*0.05>P>0.01; **0.01>P>0.001; ***P<0.001

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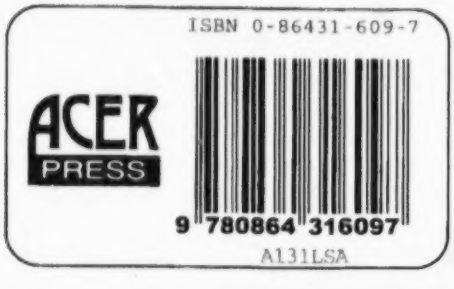

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